BEYOND THE TIP OF THE ICEBERG
The multi-billion dollar Indian MVAS market opportunity
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All demand-side survey respondents were smartphone owners and were asked detailed questions on their MVAS user experience. All supply-side interview participants were either directly responsible for MVAS initiatives at their organization or served as key decision makers for MVAS investments.

The study focused on four major categories of mobile data service usage:

» mEducation
» mEntertainment
» mFinance
» mHealth

Within each category, we gathered data for three levels of service maturity: basic, enriched and transformational. Basic MVAS services are most often informational, and generally do not offer transactional or interactive capabilities. Enriched services apply the connected and remote nature of mobility to extend the reach of a service and strengthen its utility. Transformational services apply the principles of mobility to fundamentally reinvent the ways in which services are delivered and consumed. Figure 1 illustrates the service classification for the four MVAS categories we investigated:

The objective of the study was to better understand the major drivers and barriers of the Indian MVAS market to generate insights that will advance the market. Our belief is that mobile services in India have a unique opportunity to improve the welfare of hundreds of millions of citizens, while generating significant market opportunities for technology and solution providers.

From August through December 2012 Wipro, in collaboration with the Internet and Mobile Association of India (IAMAI), conducted an exhaustive study to investigate the drivers and barriers of mobile value-added service (MVAS) adoption in India. The study included surveys with over 400 early MVAS adopters and in-depth interviews with close to 50 senior executives on the market supply side representing carriers, MVAS technology providers, content providers, device vendors, healthcare providers and financial and educational institutions1.

In the following sections, we present the findings of the study and our insights on the road ahead for key industry stakeholders.
2. The Tip of the Iceberg – Today’s MVAS Market Opportunity

A recent report from IAMAI found that the number of mobile Internet users in India is expected to nearly double between December 2012 and March 2014, from 87.1 million to nearly 165 million. This study supports the findings and revealed that the mobile phone is emerging as the preferred choice for Internet access. Amongst the survey population 100% use their mobile phones to access the Internet, while only 75% use desktop PCs to do so. Mobile Internet usage is no longer an occasional activity. More than 97% of our survey respondents access the mobile Internet multiple times a week, and 75% access it daily.

Despite mobile network capacity limitations and a limited consumer embrace of large-screen mobile devices in the Indian market; consumers overwhelmingly favor mobile Internet adoption because they value the ability to quickly access services and stay up-to-date while on the go. This dynamic will only accelerate in a country with a population greater than 1.2 billion people, 50% of whom are below the age of 26.

In addition, MVAS adoption is not limited to entertainment services. As illustrated in Figure 2, the consumers in our survey accessed a variety of data services across the four application categories:

Figure 2: Mobile Internet Usage by Service Category, Source: Wipro and IAMAI

Those findings and revealed that the mobile phone is emerging as the preferred choice for Internet access. Amongst the survey population 100% use their mobile phones to access the Internet, while only 75% use desktop PCs to do so. Mobile Internet usage is no longer an occasional activity. More than 97% of our survey respondents access the mobile Internet multiple times a week, and 75% access it daily.

While these trends highlight the strong consumer interest in MVAS, in reality, the majority of India’s consumers use only basic and free data services. Even within our advanced survey population, 44% of respondents reported that they are not paying for MVAS today. For those that have loosened up the purse strings, basic offerings such as SMS alerts and caller tune services led the way in paid MVAS usage.

Survey respondents were quite consistent in the justifications provided for not acquiring paid MVAS. As described in Figure 3, the services available today are perceived to lack customization and are easily replaced with freely available options:

There is a lot of excitement from the mEntertainment segment that is being driven by social networking, gaming and online video service applications. But, innovation in other MVAS categories such as mEducation, mFinance and mHealth has largely stalled out with basic SMS and IVR based information services.

To summarize, India’s population has enthusiastically embraced the mobile revolution. Mobile phone penetration is extremely high and amongst a younger, tech-savvy generation, it is the preferred choice for internet access. But, the use of paid MVAS – particularly for the enriched and transformational service maturity levels – is still quite low. Paid services that are in use are most often basic in nature, delivering limited value to providers and consumers alike. The MVAS market opportunity that can be observed in India today represents just the ‘tip of the iceberg’.

3. Below the Surface – The Promise of a Multi-Billion Dollar Opportunity

Despite the limitations described in the previous section, Wipro and IAMAI believe that the Indian MVAS market is poised for dramatic growth. In fact, Wipro and IAMAI project that the market will grow at a CAGR of 25% between 2012 and 2015, from an estimated $4.9 billion (USD) in 2012 to reach $9.5 billion (USD) in 2015.

Based on the immature state of the market today, why are we projecting such aggressive growth? For starters, consumers in India have established that they are willing to pay for services when they perceive value. The early success of ticketing services where consumers pay an up-front convenience charge for the ability book air, rail and even movie tickets over their handset. The issue is not that consumers are unwilling to pay for MVAS, it is that they have not perceived value in the basic services that are available today.

Therefore, it is not a surprise that consumer interest in basic services appears to be waning – while interest in enriched and transformational services is on the rise. Consider the evidence presented in Figure 4. The use of basic services is projected to decline, while in almost every case, enriched and transformational services are projected to rise from current usage levels.

Basic services offer information that is most often not customized or actionable; enriched and transformational services deliver tangible user benefits. For instance, across all four categories, more than 80% of respondents believe that enriched and transformational data services will save them time. Even in nascent categories such as mHealth and mEducation, consumers expect that these services will help them better manage their healthcare needs and will increase their learning efficiency. Transformational services will reinvent the consumer experience. As an example, they may ultimately replace existing brick-and-mortar alternatives such as a local clinic, coaching institution or bank, and consumers see significant value in the freedom and flexibility of accessing these services at the touch of a button.

The only exception to the expected growth in adoption of enriched and transformational services illustrated in Figure 3 is a minor drop in projected adoption of enriched services for mEntertainment and mFinance services. This can be attributed to the relatively higher maturity levels of these two categories. As a result, consumer requirements are evolving faster in these categories - driving a more rapid shift in consumer preference from enriched to transformational services.

The gap between consumer interest in sophisticated data services and the basic nature of available services today indicates that there is

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3. Caller tunes or ringback tones are musical tones that play in place of a typical phone ring. They are quite popular in the Indian market providing consumers with a cost effective way to personalize their mobile phone service.

4. See figure 5.
significant latent potential in the market that lies unexploited. Services available today only skim the surface of consumer requirements. Wipro and IAMAI see strong opportunities in the following areas based on our detailed interviews with key industry participants.

### 3.1. mEntertainment

mEntertainment continues to be the largest contributor to operator MVAS revenues. The market mainly consists of caller tunes, subscription based alerts such as sports updates, and SMS based contests. However, with the launch of 3G services and a decline in smartphone prices, consumers want newer and more advanced forms of mEntertainment services. Strong demand for these services is expected to come from rural and urban areas alike. Key opportunities include the following:

- **Localized Vernacular Content**: Content customized according to local tastes and preferences and offered in the vernacular medium.
- **On-Demand Music and Video Content**: Interactive, video-based content delivered on a pay-per-view basis.
- **Live TV Shows and Events**: Live streaming of mobile TV and sport and entertainment events.

### 3.2. mEducation

Mobile education can play a significant role in expanding the reach and quality of education in India. The growth in the smartphone and tablet markets is expected to provide a crucial impetus to the education sector, especially with the launch of the low-cost “Aakash” tablet by the government of India. Currently, mEducation services are primarily limited to SMS based examination alerts, IVR and SMS-based English language learning and tutor-on-call solutions. However, for mEducation to truly improve learning outcomes the services must be interactive and must replicate the offline learning experience as closely as possible. We see the following promising mEducation mobile service opportunities:

- **Interactive English Language Learning Services**: Video-based English language learning courses that help bridge the divide between the strong demand for English language skills in India’s services sector and the scarcity of institutions delivering quality English language training, especially in semi-urban and rural parts of India.
- **Competitive Examination Preparation Solutions**: Test preparation solutions that facilitate collaborative learning and test score sharing. Will help students prepare for entrance examinations to various professional courses such as medicine, engineering, and management.
- **Tutor-on-Call**: Interactive video-based solutions that enhance teaching as well as learning efficiency and supplement classroom learning.
- **Vocational Training**: Interactive, video-based training solutions to help consumers cost-effectively develop vocational skills.

### 3.3. mHealth

Mobility has the potential to profoundly improve healthcare access and affordability in India. India’s doctor to patient ratio of 1:1700 is much lower than the global average. Healthcare infrastructure is heavily skewed towards urban areas. Close to 75% of healthcare infrastructure, medical manpower and other health resources are located in urban areas that account for only 27% of the total population.

![Figure 4: Likelihood of Service Usage in the Next Three Months, Source: Wipro and IAMAI](image-url)
In addition, healthcare affordability is a major challenge. Today, about 75% of Indians are without health insurance. While most mHealth services available are based on information dissemination – with consultative services slowly gaining steam – we see a much larger role for mHealth in India given the nature and scale of healthcare challenges facing the country. These include the following:

- **Remote Diagnostics:** Video-based diagnosis and consultation services for the delivery of quality healthcare to patients without access to specialists.

- **Chronic Disease Management:** Remote monitoring services for chronic conditions such as diabetes and hypertension that are highly prevalent in India.

- **Maternal Care:** Phone-based private consultative services for expectant mothers, especially in rural areas, to address the problem of high maternal and neo-natal mortality in India.

### 3.4. mFinance

mFinance services in India began with SMS based alerts but have now graduated to mobile banking services supporting a range of transactions. Consumers have rapidly adopted mobile banking services based on the convenience they offer. Mobile phones can also play a key role in extending financial services to the 40% of India’s population who are unbanked. We have observed major opportunities for mFinance services in the following areas:

- **Mobile Wallet Services:** Operator agnostic mobile wallet solutions that cover a wide range of transaction types and merchant partners.

- **Mobile Remittance Services:** Peer-to-Peer cash transfer facilities serving the needs of a large, un-banked migrant population residing in urban areas that need to repatriate money to rural areas.

- **Business Correspondence Model Based Services:** Branchless banking services integrated and interoperable with a brick-and-mortar sponsor to drive financial inclusion in India.

### 4. Success Strategies – Recommendations for the Telco-Media Industry

We expect that as the 3G/4G deployments accelerate, smartphone and tablet penetration grows and MVAS service maturity moves from basic to enriched and transformational solutions – the Indian MVAS market will experience dramatic growth. Based on our detailed research and analysis, we present the following recommendations to help industry participants maximize their chances of success in the Indian MVAS market. We have grouped these recommendations to ensure the relevancy for various readers.

#### 4.1. Universal Recommendations

The following series of recommendations are relevant for any organization interested in the Indian MVAS market:

- **Invest in Enriched and Transformational Services:** The dearth of innovative, high-quality content is the primary inhibitor of MVAS adoption. As discussed, the industry has focused on services that require little investment such as caller tunes and basic informational services. This problem is felt across all four application areas. But it is especially problematic for mHealth and mEducation where consumers require solutions that offer specific outcomes – and SMS and IVR based informational services deliver limited utility. In order to realize the potential of the Indian MVAS market, industry participants must invest in enriched and transformational services that will create sustainable market value.

- **Improve Consumer Awareness:** Poor consumer awareness is also holding back the market. Our study revealed that despite the launch of mobile money services by several CSPs, the majority of India’s consumers are unaware of the value and benefits of these services. Even in our very advanced survey population, 1 in 5 respondents was unaware that transformational mFinance services existed in the Indian market. For mHealth, the problem was even more acute with nearly half of survey participants unaware of transformational services – in spite of multiple tele-health programs from Apollo Health, Vodafone and others. In order to improve the adoption of mobile data services, industry participants must improve service awareness with marketing and educational programs.

- **Develop Partnerships:** Due to the complexity of the ecosystem, strong partnerships are critical for the success of enriched and transformational MVAS. Successful solutions development requires collaboration across diverse set of players including CSPs, content creators, VAS technology providers, device vendors, and sector specific stakeholders such as banks, hospitals, and educational institutions. Industry participants must forge strong partnerships with other ecosystem players in order to ensure successful development, commercialization, and adoption of mobile data services.

- **Focus on Usability:** Consumers have rated complexity as a key barrier to service adoption. This is particularly important issue to address because understandably, consumers anticipate more complexity with more advanced services. For instance, 29% of survey participants believed that enriched mHealth services would be too complex to use while 39% believed that transformational mHealth services would be too complex. The other application areas follow a similar pattern. All players along the mobile data services value chain must focus on developing offerings that are intuitive and easy-to-use in order to address consumer concerns that sophisticated services will be more complex and difficult to use than basic services.

- **Focus on Safety and Privacy of Consumer Data:** The safety and privacy of personal data featured among the top barriers to MVAS adoption across all service categories in our survey. In India, the mobile phone is likely to be the primary mode of Internet access for a majority of the population. As a result, the need for enhanced data security is amplified for Indian consumers. Industry participants must address consumer concerns of safety and privacy while building devices, platforms, and applications.

#### 4.2. Recommendations for Domestic Mobile Operators

This group of recommendations offers advice specifically for mobile operators who are active participants in the Indian market:

Gain First Mover Advantage: Consumer interest in mobile data services has been negatively impacted by instances of excessive charging by CSPs. Consumers fear they will be charged for services they have not used. Complex and non-transparent billing have added to the trust deficit. In the case of mFinance services, the trust barriers are further heightened as consumers have traditionally trusted banks with their finances and are not naturally inclined towards entrusting CSPs with their finances. For example, 20% of our survey participants agreed with the statement that they do not trust transformational mFinance services and would prefer going to a financial institution. CSPs must address the trust deficit by focusing on transparent billing, avoidance of bill shock and elimination of auto-charging for MVAS.

Focus on Network Coverage and Speed: Despite the launch of 3G and 4G services in some regions of India, data transmission rates and network coverage still have room for improvement. Across our survey population, 24% of participants feel that network coverage is poor for mobile internet use and 34% of participants find internet speeds slow and unreliable when compared with fixed broadband. Advanced services that will increasingly rely on video require high data transfer speeds and very low levels of network latency. CSPs must improve network coverage and speed in order to drive the adoption of advanced high-bandwidth VAS.

Incentivize Partners: CSPs must nurture their relationships with content and VAS technology providers and properly incent them to encourage the development of high-quality VAS offerings. Current MVAS revenue sharing models unreasonably favor CSPs. Often, the CSP share of MVAS revenues is in the 70-90% range leaving other players with very limited revenue opportunities. This model has been OK for the basic services that dominate the market today – but it is stifling innovation for enriched and transformational services.

Encourage Smartphone Adoption: Low smartphone penetration is a serious barrier to MVAS adoption in India. Smartphone penetration in India is less than 10% - much lower than that in most developed countries, which have smartphone penetration levels in excess of 50%. CSPs should offer subsidized smartphones with data contracts in order to boost MVAS adoption.

### 4.3. Recommendations for Global Operators Who Are Interested in the Indian Market

Many multi-national mobile operators have already made significant investments in India. This group of recommendations is for those that have not yet launched MVAS in the Indian market, but are intrigued by its potential:

**Gain First Mover Advantage:** Given that the domestic MVAS ecosystem is in the early stages of development and services offered are quite basic, global operators can gain a first mover advantage by replicating sophisticated services offered in other markets, in India.

**Test New Offerings:** India can be an attractive testing ground for global operators seeking to test VAS offerings prior to launching them in other emerging markets. For instance, in many developed regions there are stringent regulatory hurdles that are holding back development of innovative mHealth services. In India, the vast majority of healthcare services are privately funded which immediately lowers the barrier to entry for solution providers.

### 4.4. Recommendations for Equipment Manufacturers

Telecom equipment vendors can take an active role in nurturing the Indian MVAS market opportunity by considering the following recommendations:

**Develop Low Cost Devices:** The small screen size of feature phones limits the utility of advanced services, especially interactive video-based services that require smartphones and tablets for a richer user experience. However, the high cost of smartphones and tablets is a potential deterrent to service adoption. In the mEducation sector in particular, tablets are more suited to the use of mobile learning solutions due to their larger screen size and higher storage capacity. But with the exception of the government subsidized “Aakash” tablet, tablets in India are priced too high for mass adoption. Equipment manufacturers should continue to aggressively pursue the development of low-cost smartphones and tablets that will not only encourage large-scale adoption of mobile data services – but will also drive demand for core network infrastructure products.

**Focus on Increased VAS Functionality in Devices:** As consumers shift from basic to sophisticated services, equipment manufacturers should consider the development of sector or function specific devices that cater to specific customer needs. For example, smartphones with built-in glucometers can aid the adoption of remote diabetes management services by enabling patients to easily capture and transmit blood glucose readings to remote specialists.

**Develop Billing Relationships with Consumers:** Equipment manufacturers should also develop billing relationships with consumers by offering mobile data services directly. While the Indian market is less mature, this model has worked well for popular handset manufacturers in the developed world. If incumbent operators continue to drag their feet with revenue sharing models that are undesirable for MVAS content providers – the market could be ripe for just this type of disruptive play.

### 4.5. Recommendations for Content and VAS Technology Providers

We have seen a surge of interest in the Indian market from content and OTT powerhouses such as Google and Facebook over the past several years. For MVAS content and technology providers interested in serving Indian consumers, we have assembled the following recommendations:

**Focus on Experience:** The threat of MVAS to traditional service delivery models will only accelerate. For example, video-based tutoring solutions are already beginning to place pressure on brick-and-mortar coaching institutions. Consequently, consumers will expect mobile services to deliver an experience that is comparable to the original offline experience. In order to nurture consumer comfort with mobile data services, content and technology providers should focus on replicating the offline experience in their solutions.

**Focus on Outcomes:** Our research revealed that consumers...
value services that offer concrete outcomes. This is especially true for mEducation and mHealth services where outcomes clearly drive service adoption. For example, tele-triage services that offer basic medical advice and are limited to prescriptions of OTC medication have received a lukewarm reception in India. Consumers prefer traditional services that provide tangible medical assistance to mobile alternatives that offer only limited medical support. In order to stimulate the adoption of mEducation and mHealth services content and VAS technology providers must also focus on moving up the value chain and develop services that offer specific outcomes.

Develop Personalized Content: India is the world’s second largest country by population and is home to incredibly range of cultural diversity. Consider that there are 22 officially recognized languages in the country, and many dozens more are spoken by India’s citizens. This diversity must be reflected in mobile data services. Consider that over 20% of our survey respondents believed that basic entertainment services were not customized to their needs. In India, development of personalized, vernacular content isn’t just important – it is critical to MVAS success.

The Indian MVAS market offers abundant opportunities for growth to all industry participants. Those that can look beyond the tip of the iceberg, and invest the resources required to advance the market, stand to benefit greatly from one of the largest and most exciting mobile services markets in the world.

Appendix

Total Indian MVAS Market Size

Figure 5: Total Indian MVAS Market Value in USD billions, Source: Wipro, IAMAI, IMRB Analysis
Drivers and Barriers of Mobile Data Service Adoption

Figure 6 illustrates the key drivers and barriers of mobile data service adoption across the four categories of mHealth, mEducation, mEntertainment, and mFinance.

Summary of Service Adoption Drivers - mHealth

Summary of Service Adoption Barriers - mHealth

Summary of Service Adoption Drivers - mEducation

Summary of Service Adoption Barriers - mEducation
Figure 6: Summary of Key Drivers and Barriers of Mobile Data Service Adoption, Source: Wipro and IAMAI
Characteristics of Research Participants

Figure 7 illustrates the distribution of survey respondents. The demand-side consumer survey spanned 400 respondents across 13 Tier 1 and 2 cities in India. 78% of the respondents were prepaid customers.

**Distribution of Demand-Side Survey Respondents**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Student</td>
<td>19%</td>
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<tr>
<td>Executive</td>
<td>37%</td>
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<tr>
<td>Self-Employed</td>
<td>16%</td>
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<tr>
<td>Other</td>
<td>28%</td>
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</tbody>
</table>

**Survey Respondents Distribution by Type of Mobile Connection**

<table>
<thead>
<tr>
<th>Type of Connection</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Prepaid</td>
<td>78%</td>
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<tr>
<td>Postpaid</td>
<td>22%</td>
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**City-Wise Distribution of Survey Respondents**

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<th>City</th>
<th>Percentage</th>
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<td>Mumbai</td>
<td>11%</td>
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<td>Delhi</td>
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<td>Chennai</td>
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Figure 7: Distribution of Research Participants, Source: Wipro and IAMAI
The supply-side interviews had representation from across the mobile data service ecosystem, as shown in Figure 8.

Figure 8: Distribution of Interview Respondents, Source: Wipro and IAMAI
About the Authors

Marc Jacobson is the Global Head of Marketing and Strategy for Wipro’s Media and Telecom business. He is responsible for refining, enhancing and communicating the group’s market position and business strategy in addition to leading all outbound marketing activities. Previously, Marc was a member of Wipro Consulting’s Product Strategy Group where he sold, structured and led consulting engagements that focused on improving client go-to-market strategies and sales performance. Prior to joining Wipro, Marc worked for industry analyst firm Ovum where he was a founding member and key contributor to the company’s first web-based advisory service E-Services@Ovum.

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Roopa Nambiar is part of the marketing team in the Global Media and Telecom business unit at Wipro. She is involved in driving thought leadership initiatives and developing marketing content for the business unit. Prior to her current role, Roopa was a consultant with Wipro Consulting’s Product Strategy and Innovation Group, where she helped hi-tech companies identify new market opportunities and develop business strategies.

About IAMAI

The Internet and Mobile Association of India [IAMAI] is a young and vibrant industry association with ambitions of representing the entire gamut of digital businesses in India. It was established in 2004 by the leading online publishers, but in the last eight years has come to effectively address the challenges facing the digital and online industry including mobile content and services, online publishing, mobile advertising, ecommerce and mobile and digital payments among others. Eight years after its establishment, the association is still the only professional industry body representing the online and mobile VAS industry in India. The association is registered under the Societies Act 1896 and is regulated by the Charity Commissioner of Maharashtra. With a membership of 130 plus Indian and MNC companies, offices in Delhi and Mumbai and a permanent and professional staff, the association is well placed to work towards charting a growth path for the digital industry in India.

About Wipro

Wipro’s comprehensive suite of converged services and solutions addresses the entire digital value chain from the network core to device applications. Our vertically aligned business model ensures that we understand the business and technology imperatives of specific industries, while our technology service lines allow us to architect integrated technology solutions. In an era of digital disruption, Wipro is uniquely positioned to partner with Telco-Media organizations to deliver the business and technology expertise that enables them to Do Business Better and Win in the Digital World.

About Wipro Council for Industry Research

The Wipro Council for Industry Research, comprised of domain and technology experts from the organization, aims to address the needs of customers by specifically looking at innovative strategies that will help them gain competitive advantage in the market. The Council, in collaboration with leading academic institutions and industry bodies, studies market trends to equip organizations with insights that facilitate their IT and business strategies. For more information please visit www.wipro.com/insights/business-research.

About Wipro Technologies

Wipro Technologies, the global IT business of Wipro Limited (NYSE:WIT) is a leading Information Technology, Consulting and Outsourcing company, that delivers solutions to enable its clients do business better. Wipro Technologies delivers winning business outcomes through its deep industry experience and a 360 degree view of “Business through Technology”– helping clients create successful and adaptive businesses. A company recognized globally for its comprehensive portfolio of services, a practitioner’s approach to delivering innovation and an organization wide commitment to sustainability, Wipro Technologies has over 135,000 employees and clients across 54 countries.

For more information, please visit www.wipro.com or contact us at info@wipro.com.