



Study about the adherence and impact of  
e.iniciativas  
Executive Summary

December 2009

Study prepared for ICP-ANACOM by KPMG.



## 1. FRAMEWORK

The national policy for the information society and promotion of access to broadband was defined through the programme Ligar Portugal<sup>1</sup>, launched by the government in 2005. Among its core objectives, the need of mobilize the Portuguese society for the use of information and communication technologies was enhanced and among the guidelines emerged society's mobilization and stimulation to collaboration nets, as well the promotion of social inclusion. In the first case, it was considered pertinent to promote public actions for the diffusion of information and communication technologies, in order to extend their use. In the second case, it was established as a principle the will to assure the use of information and communication technologies by the least- favoured social groups.

In order to generalize the access to laptops and broadband, according to the principles previously presented, the government launched the e.iniciativas ("e.initiatives") on the 1<sup>st</sup> of June of 2007. These comprehend the e.oportunidades ("*e. opportunities*") initiatives, e.escola ("*e.school*") and e.professor ("*e.teacher*"), and on the beginning it tried to include Novas Oportunidades ("*New Opportunities*") trainees, students of the 10<sup>th</sup> grade and primary and secondary teachers.

e.oportunidades initiative, available from 11<sup>th</sup> June of 2007, consisted on a proposal composed by a laptop plus a broadband internet access. The adherence implied an initial down payment of one hundred and fifty euro and a monthly payment of fifteen euro, for a minimum contractual period of one year.

e.escola initiative was launched on the 15<sup>th</sup> of September of 2007 and was initially directed to all 10<sup>th</sup> grade students, and it was extended to 11<sup>th</sup> and 12<sup>th</sup> grades in March of 2008. During 2008/2009 school year, it was extended to 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> grades and still on the same school year 5<sup>th</sup> and 6<sup>th</sup> grades were included. Adherents benefited of a laptop and a broadband internet access, and for that they would need to make an initial down payment of one hundred and fifty euro, a monthly payment five euro lower than the operators' market offers and a three years contractual period. The exception to the previous rule are the students inscribed in school social work (ASE), which includes all students of brackets 1, 2 and 3 of family allowance. In the case of brackets 1 and 2 the adherence doesn't imply any initial down payment and the monthly payment relative to the broadband internet access was five euro. For students of bracket 3 of the family allowance monthly payment was fifteen euro, without any initial down payment as well.

Finally, the e.professor initiative (launched in September 17<sup>th</sup>, 2007) allows all primary and secondary teachers a laptop and a broadband internet access. For that, each adherent paid an initial down payment of one hundred and

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<sup>1</sup> Vd. [www.ligarportugal.pt](http://www.ligarportugal.pt)

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fifty euro and a monthly payment five euro lower than the operators' market offers, binding themselves to a three years contractual period.

The three UMTS licensees adhered to e.iniciativas both for the commitments assumed on tendering procedures for the attribution of their licenses and for their realization grade at the time of the beginning of the program. Presently, the available offers of each operator are varied, though any of them guarantees several *download* and *upload* speeds, traffic and mensal<sup>2</sup> cost (see table 1).

**Table 1 – Characterization of the available standard offers within the ambit of e.iniciativas**

Offer name	Download maximum speed	Upload maximum speed	Traffic	Monthly payment	Operator	Associated initiative
Banda Larga 2.0 Mbit	Up to 2 Mbps	Up to 384 Kbps	1 Gb	17,87 Euro	Vodafone	All e.iniciativas
Banda Larga 3.6 Mbit	Up to 3,6 Mbps	Up to 384 Kbps	3 Gb	25,39 Euro	Vodafone	e.escola (students without ASE) e.professor
Kanguru Basic	Up to 2 Mbps	Up to 384 Kbps	1 Gb	17,87 Euro	Optimus	All e.iniciativas
Kanguru Light	Up to 3,5 Mbps	Up to 512 Kbps	3 Gb	25,39 Euro	Optimus	e.escola (students without ASE) e.professor
Kanguru Xpress	Up to 5 Mbps	Up to 1,4 Mbps	6 Gb	35,50 Euro	Optimus	e.escola (students without ASE) e.professor
Tarifário BL Ligth	Up to 2 Mbps	Up to 384 Kbps	1 Gb	17,87 Euro	TMN	e.escola (students without ASE) e.professor
Tarifário BL	Up to 3,6 Mbps	Up to 512 Kbps	1 Gb	25,39 Euro	TMN	All e.iniciativas

Around one year after the launch of these initiatives, ICP-ANACOM concluded a survey on the adherence and impact of e.iniciativas<sup>3</sup> and, now, ICP-ANACOM considered it was time to proceed to a re-evaluation of the impact on the target publics, always with the concern of identifying project's optimization measures. In this context, the current report includes three fundamental aspects:

- a) Analysis of the information relative to effective adherence (i.e., ratio between volume of equipments delivered and distributed *vouchers*<sup>4</sup>) to e.iniciativas, based on the data established by the Gabinete de Estatística e Planeamento da Educação – GEPE (“Statistics and Educational Planning Office”) of the Ministry of Education (relatively to the universe of potential adherents) and by the Fundação para as Comunicações Móveis - FCM (“Foundation for Mobile Communications”) (relatively to the effective volume of adherences);

<sup>2</sup> The presented information was collected on December 2nd, 2009, on the operators' sites.

<sup>3</sup> Available at <http://www.anacom.pt/render.jsp?contentId=829158>.

<sup>4</sup> *Vouchers*, in this case, mean the Universe of individuals to whom e.iniciativas are directed; i. e., they represent the whole of students, trainees and teachers that may apply to the initiatives.

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- b) Evaluation of e.iniciativas impact on the mobile broadband traffic (based on traffic data established by ICP-ANACOM in the operators);
- c) Assessment of the results of three surveys in the e.iniciativas target-public, whose field work was concluded in October of 2009.

## 2. MAIN CONCLUSIONS

Conclusions must be separated on two moments. On one hand, conclusions that can be extracted having for base the available official information, in particular that which is originated on the FCM, on the GEPE and on telecommunications operators (TMN, Optimus and Vodafone); on the other hand, conclusions that are originated on the survey in the three target-groups of e.iniciativas, meaning, primary and secondary students (from 5<sup>th</sup> to 12<sup>th</sup> grade), New Opportunities trainees and primary and secondary teachers.

In the case of the conclusions originated on official sources and on operators, those are organized on four key-points:

- a) Evolution of adherents' number;
- b) Adherents geographical distribution;
- c) Characterization of penetration ratios by gender, age range, and teaching type;
- d) Used operators and traffic evolution.

Relatively to conclusions originated on the survey, we undertake a reading of the results that aims:

- a) Identify, on the period previous to adherence, the relation of the interviewed with informatics and internet using;
- b) Identify the reasons for adherence to e. iniciativas;
- c) Measure the impacts of adherence to e.iniciativas, both relatively to computers and internet use, and relatively to access places and internet researched contents;
- d) Identify e.iniciativas improvements areas.

## 2.1. CONCLUSIONS BASED ON OFFICIAL SOURCES

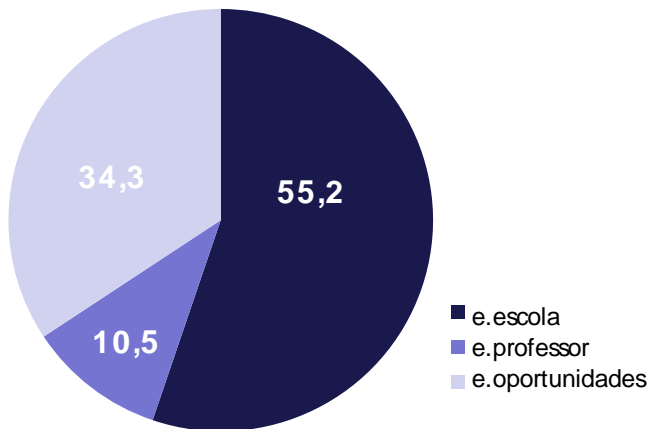
### a) Evolution of the number of adherents

**In October of 2009, e.iniciativas included 851.7 thousand individuals.**

The whole of e.iniciativas included, in October of 2009, 851,7 thousand individuals<sup>5</sup>; 470,0 thousand of them (55,2%) were included on e.escola, 89,6 thousand (10,5%) on e.professor and 292,1 (34,3%) on e.oportunidades (see graph1).

**Graph 1 – Distribution of adherents per e.iniciativas, October 2009.**

(Values in percentage)



Source: ICP – ANACOM, based on data of FCM, October 2009.

In October of 2009, 46,0% of adherents were of the male gender and 5,0% of female gender, according data supplied by the FCM. Results very close to those verified on a previous analysis moment (November of 2008) when there were 52,0% of female adherents and 48,0% of male adherents.<sup>6</sup>

In April of 2009, there was also an e.iniciativas penetration rate of 40,7% (considering the universe of potential adherents), being 43,8% for e. school, 47,7% for e.professor and 34,6% for e.oportunidades.<sup>7</sup> (see graphic 2)

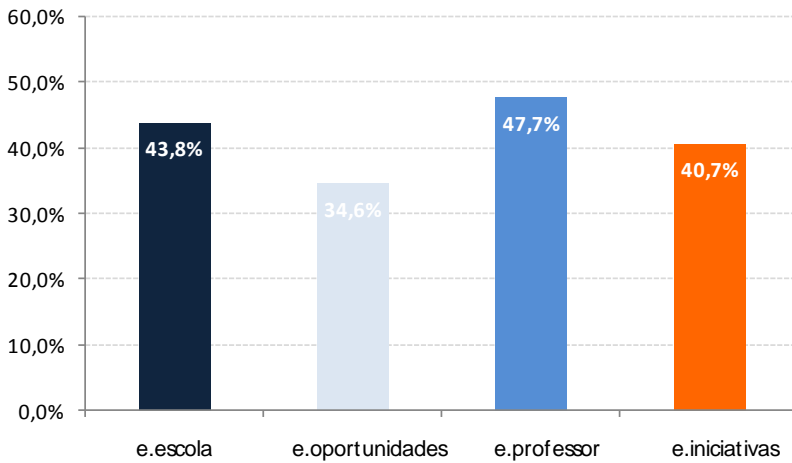
<sup>5</sup> According to data supplied at 19/11/2009 by the FCM relative middle October 2009.

<sup>6</sup> ANACOM, Survey on Adherence and Impact, February 2009.

<sup>7</sup> According to data supplied by FCM and by GEPE, Ministry of Education, relative to April 2009 and only for mainland Portugal. This way whenever penetration rates have to be considered, April 2009 shall be the month to be considered and we have to pay attention that these results only reflect mainland Portugal. In the case of e.escola, we have 399,2 thousand adherents for a universe of 911,3 thousand students. In the case of e.professor initiative, 82,8 thousand adherents for 173,8 thousand teachers. In the case of e.oportunidades initiative, 232,8 thousand adherents, for 672,8 thousands potential candidates.

### Graph 2 – Rates of e.iniciativas adherence

(Values in percentage)

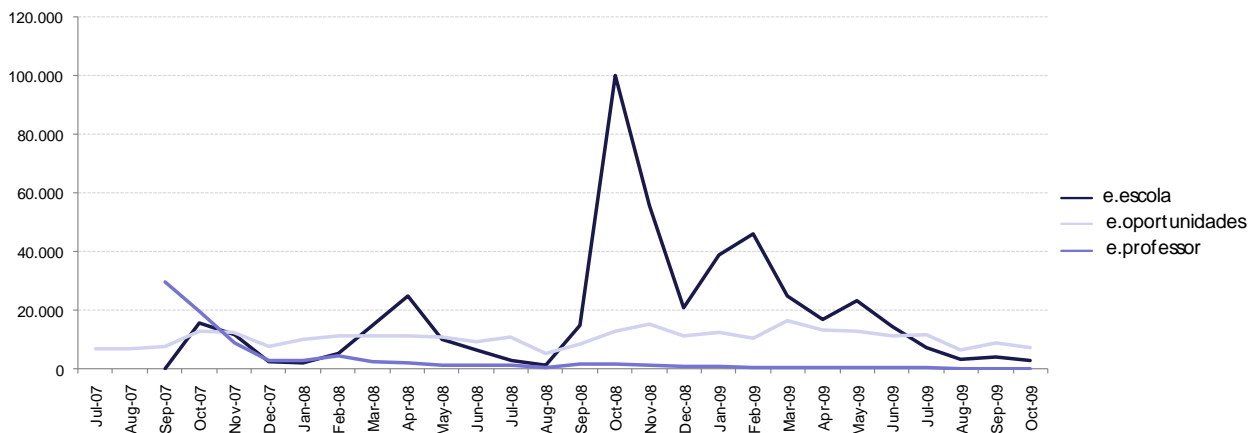


Source: ICP – ANACOM, based on data of FCM and GEPE/ME, April 2009.

Previous results are the consequence of a variable monthly adherence since July 2007, which reveals two growth fundamental moments: October 2007, with the beginning of the school year, and October 2008, identically with the beginning of the school year, to which are associated growths of the number of adherents to the e.escola initiative (see graphs 3 to 6). In order to justify these facts, we must underline that the initiative e.escola extended, in March 2008, the base for possible adherents to the 11<sup>th</sup> and 12<sup>th</sup> grades and, in the beginning of 2008/2009 school year, to 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> grade students, what implied a significant growth potential of the adherence rate on the following months.

### Graph 3 – Monthly adherence per e.iniciativas

(Absolute values)

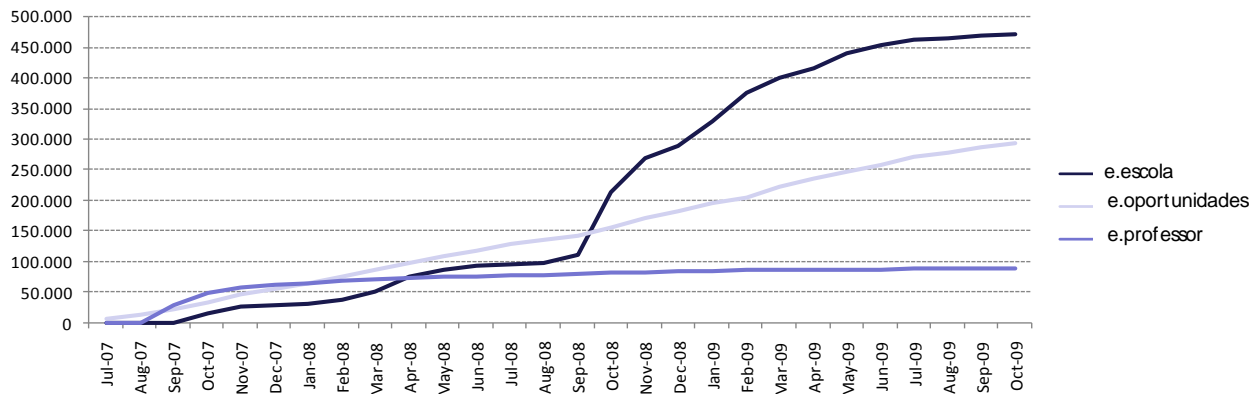


Source: ICP – ANACOM, based on of FCM data, October 2009.

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**Graph 4 – Accumulated values of adherence per e.iniciativas**

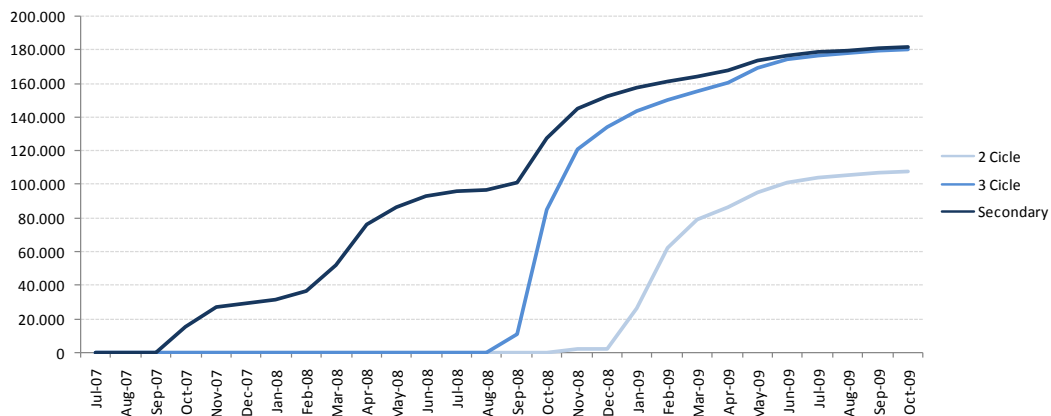
(Absolute values)



Source: ICP – ANACOM, based on FCM data, October 2009.

**Graph 5 – Evolution of the number of adherents of the e.escola initiative, by stage of education**

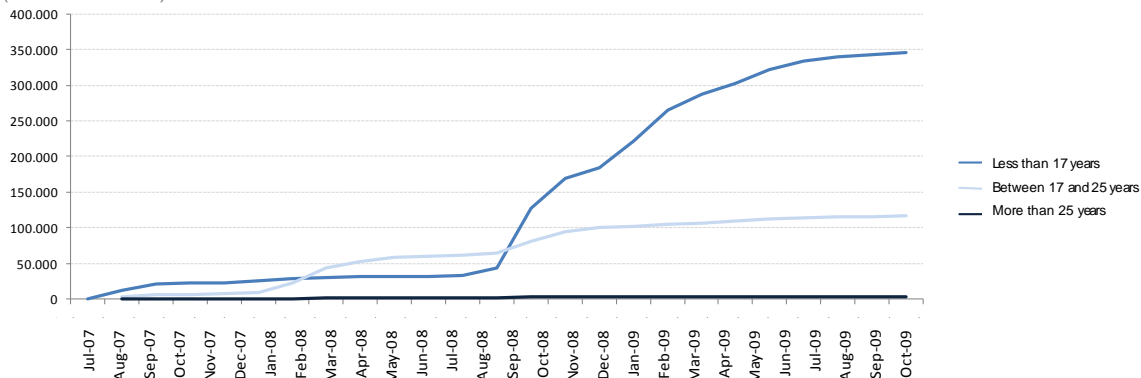
(Absolute values)



Source: ICP – ANACOM, based on FCM data, October 2009.

**Graph 6 – Accumulated values of adherence per e.escola initiative, per age range**

(Absolute values)



Source: ICP – ANACOM, based on FCM data, October 2009.

Concerning the packages available for operator, as mentioned above (see table 1), in e.oportunidades initiative, adherents could only join by choosing the offer with lower rate of speed provided by each operator. This situation could also be noticed for the students who had social support school.

In situations in which adherents can choose between tariffs at different rate, most of these have been choose, since the beginning of e.iniciativas, the tariff which is associated with lower rate of speed.

## b) Geographical distribution of the adherents

**In April 2009, the NUTS III penetration rates of the several initiatives were various; Great Lisbon appeared always as the region with less penetration, existing remarkable penetration ability in the interior regions, particularly of e.escola, was verified.**

When analyzing NUTS III distribution, the e.escola initiative shows a tendency for a superior penetration rate in the interior regions that being particularly relevant in the measure that, as a rule, the offers available in “normal” commercial conditions present the opposite tendency.

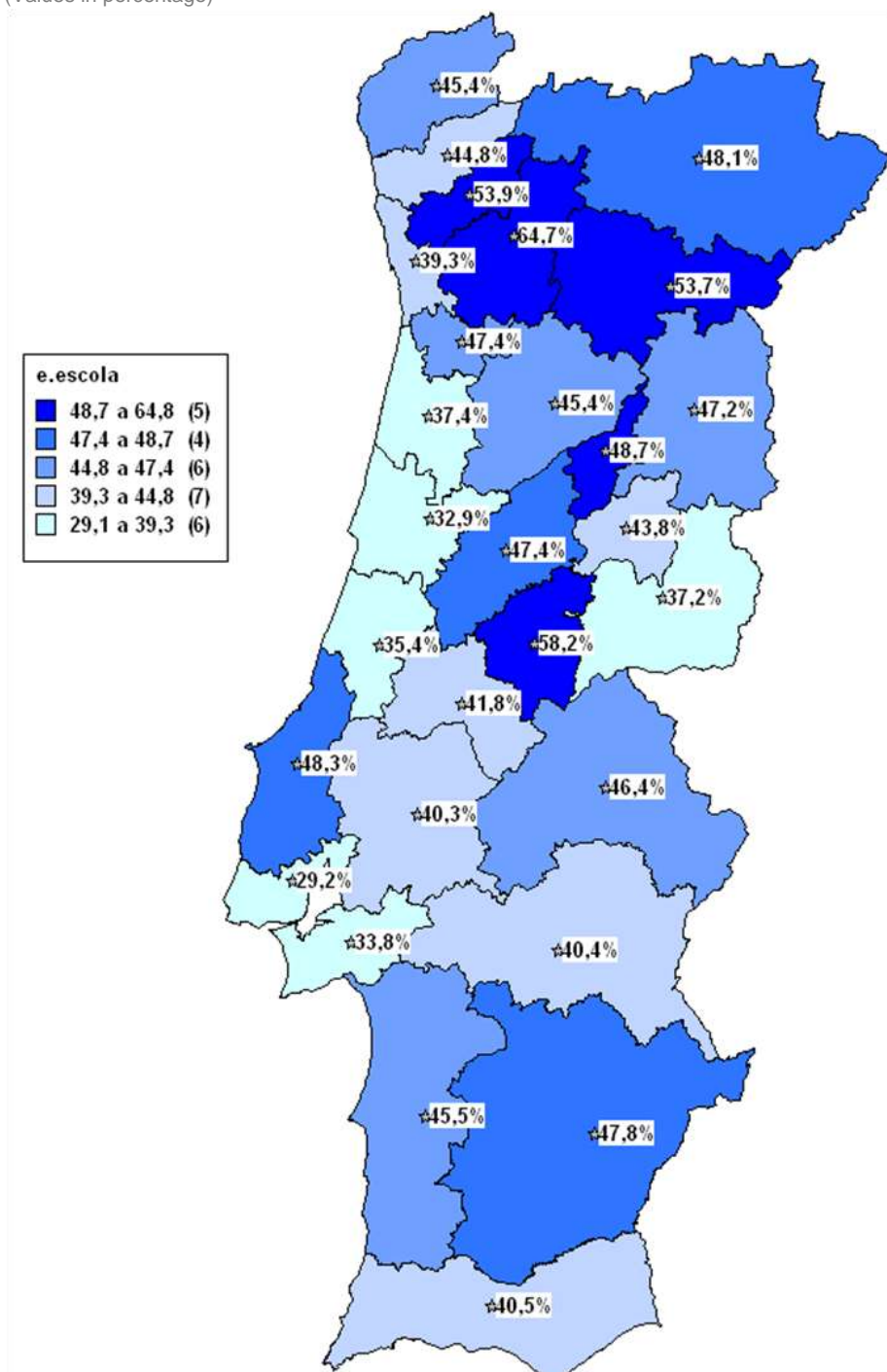
In the measure that they can attract more than 50% of the registered students, highlight for the penetrations verified in the regions of Tâmega (64,7%), Pinhal Interior Sul (58,2%), Ave (53,9%) and Douro (53,7%).

It doesn't stop being true that, for exceeding the total average of the initiative's penetration (43,8%), the regions of Serra da Estrela (48,7%), Oeste (48,3%), Alto Trás-os-Montes (48,1%), Pinhal Interior Norte (47,8%), Baixo Alentejo (47,8%), Entre Douro e Vouga (47,4%), Beira Interior Norte (47,2%), Alto Alentejo (46,4%), Alentejo Litoral (45,5%), Minho Lima (45,4%), Dão-Lafões (45,4%) and Cávado (44,8%) deserve highlights too (see map 1).



### Map 1 – e.escola penetration rate per NUTS III

(Values in percentage)



Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009.

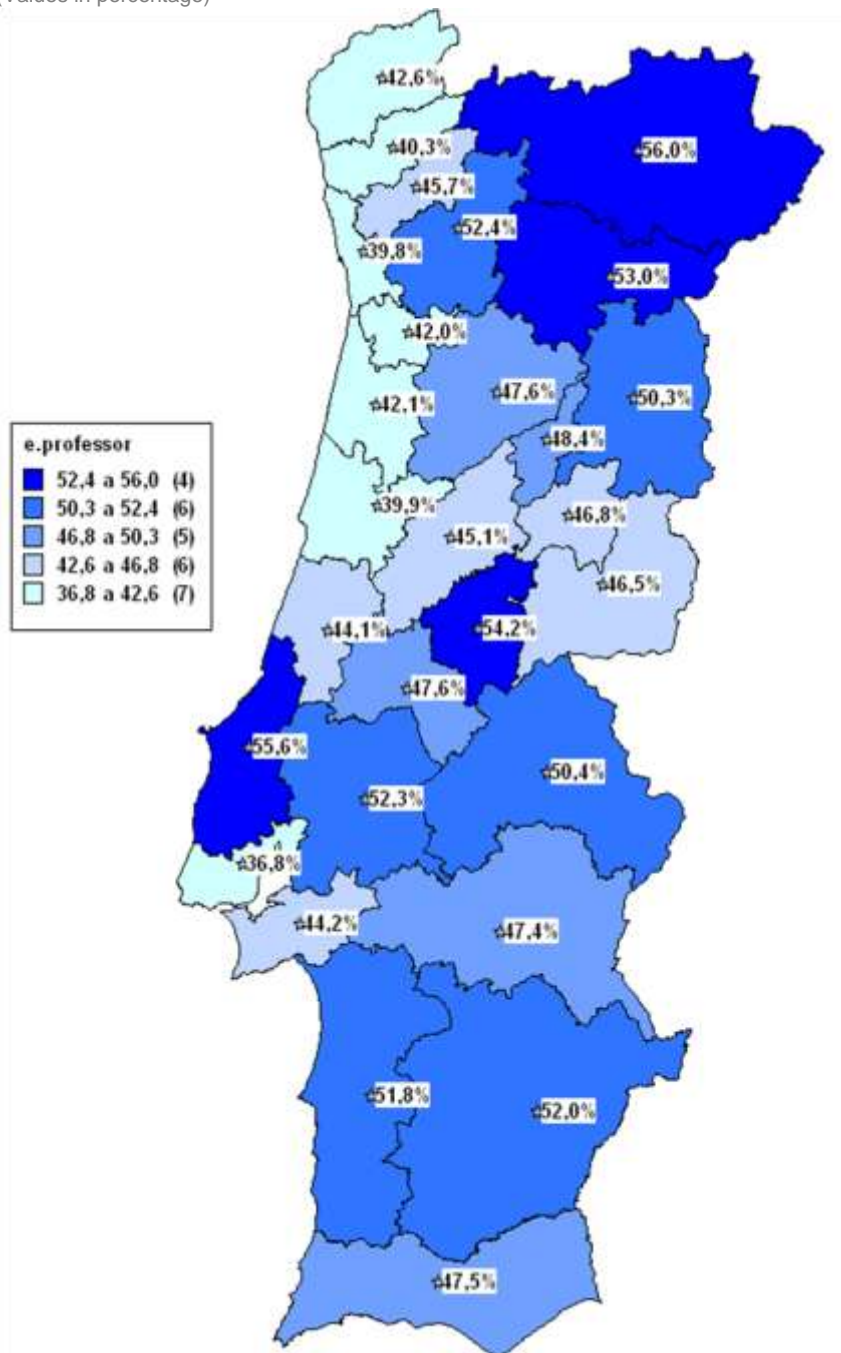
In the case of the e.professor initiative, penetrations superior to the global average of the initiative (47,7%) are verified in the regions of Alto Trás-os-Montes (56%), Tâmega (52,4%), Douro (53,0%), Beira Interior Norte

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(50,3%), Serra da Estrela (48,4%), Pinhal Interior Sul (54,2%), Oeste (55,6%), Lezíria do Tejo (52,3%), Alto Alentejo (50,4%), Alentejo Litoral (51,8%) and Baixo Alentejo (52,0%) (See map 2).

**Map 2 – e.professor penetration rate per NUTS III**

(Values in percentage)

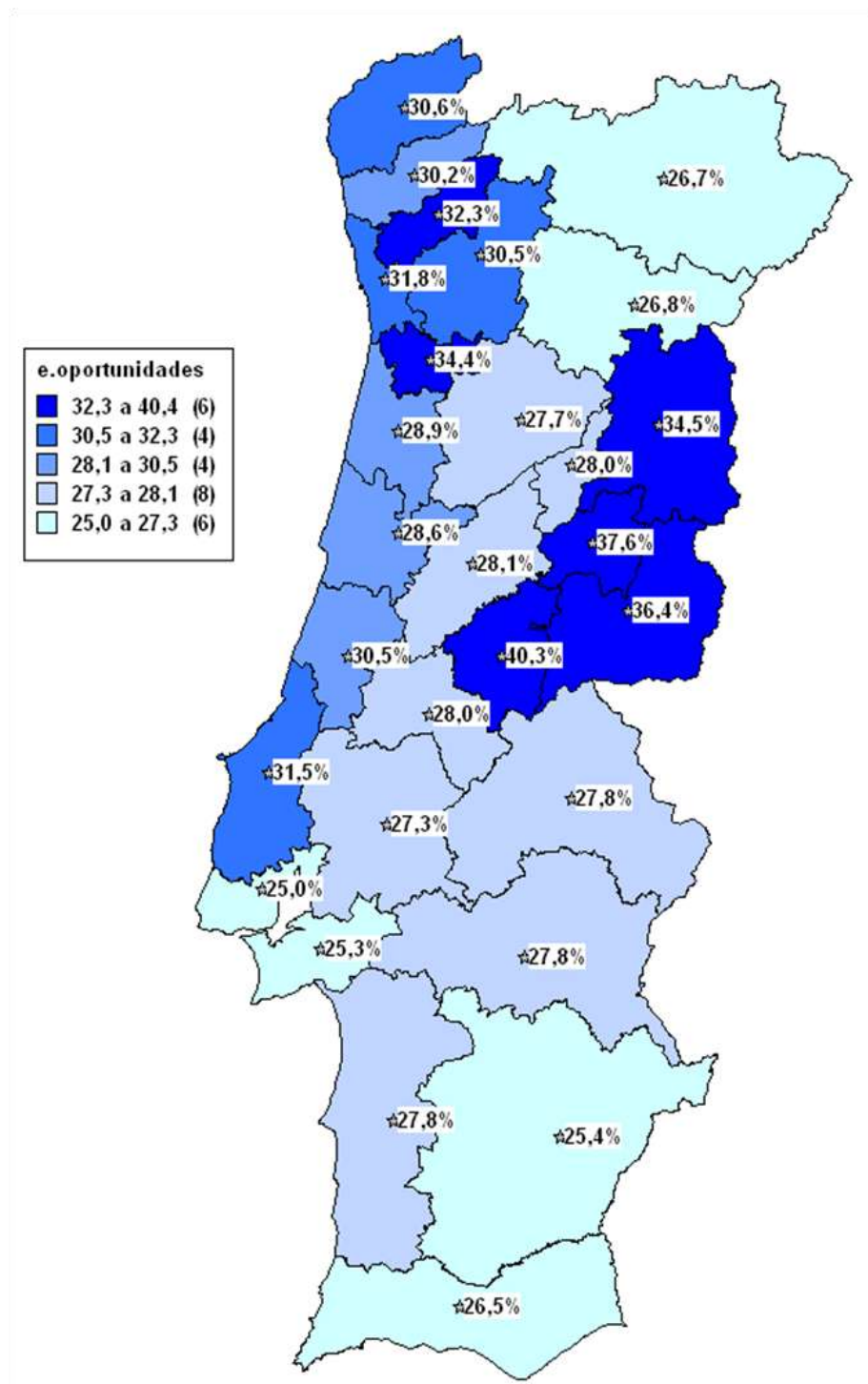


Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009.

Relatively to the e.oportunidades initiative, there are three highlighted regions due to reached penetration, because they manage to attract more than 34.6% (global average rate for the initiative): Pinhal Interior Sul (40,3%), Cova da Beira (37,6%) and Beira Interior Sul (36,4%) (See map 3).

### Map 3 – e.oportunidades penetration rate per NUTS III

(Values in percentage)



Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009

### c) Characterization of the penetration rates by gender, age range and type of schooling

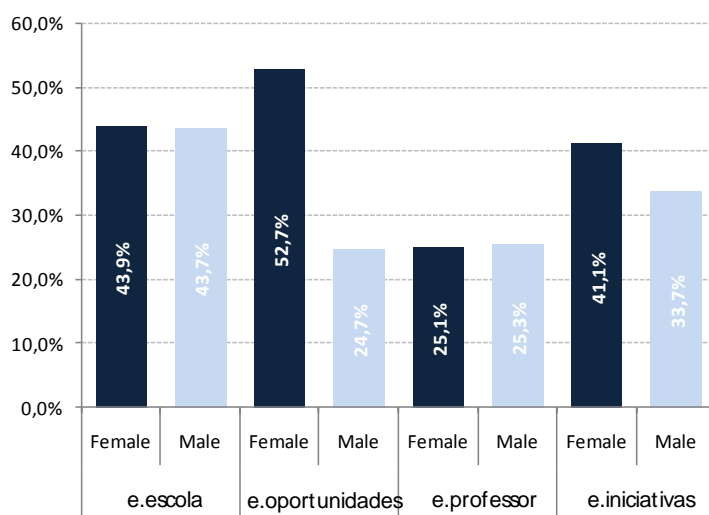
**e.iniciativas reveals to be more attractive to female candidates and to individuals with origins in public schooling (e.escola and e.professor).**

In terms of gender, for the total of e.iniciativas, female candidates tend to reveal a more adherent behaviour (41,1%) facing 33,7% verified among potential male adherents. If in e.escola initiative the adherence behaviour is relatively similar (43,9% of adherences for female gender and 43,7% among male candidates), similarly to what happens with e.professor initiative (25,1% adherences for female gender facing 25,3% for the male gender), regarding the initiative e.oportunidades the adherences of female candidates represent more than the double of the adherences among potential male candidates (respectively, 52,7% for 24,7%) (See graph 7).

Previous results are near of those verified by the end of November 2008. In that time, for the total of e.iniciativas, the female gender adherents presented a rate of adherence of around 44%, while for the male gender adherents that rate was around 32%. In the same way, when we made an analysis for each initiative, we understood that the main contribution for those differences appeared on the e.oportunidades initiative, where the female adherence rate was 47% while the male adherence didn't exceed 23%.

**Graph 7 – e.iniciativas penetration rate by gender**

(Values in percentage)



Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009

In the case of the e.escola initiative, there is a 45,2% penetration rate among individuals with 16 or less years old and a 41,5% among individuals between 17 and 25 years old (see graph 8). Such results get near the results of November 2008, where there is 42% among the adherents with 16 or less years old and 38% among students between 17 and 25 years old.

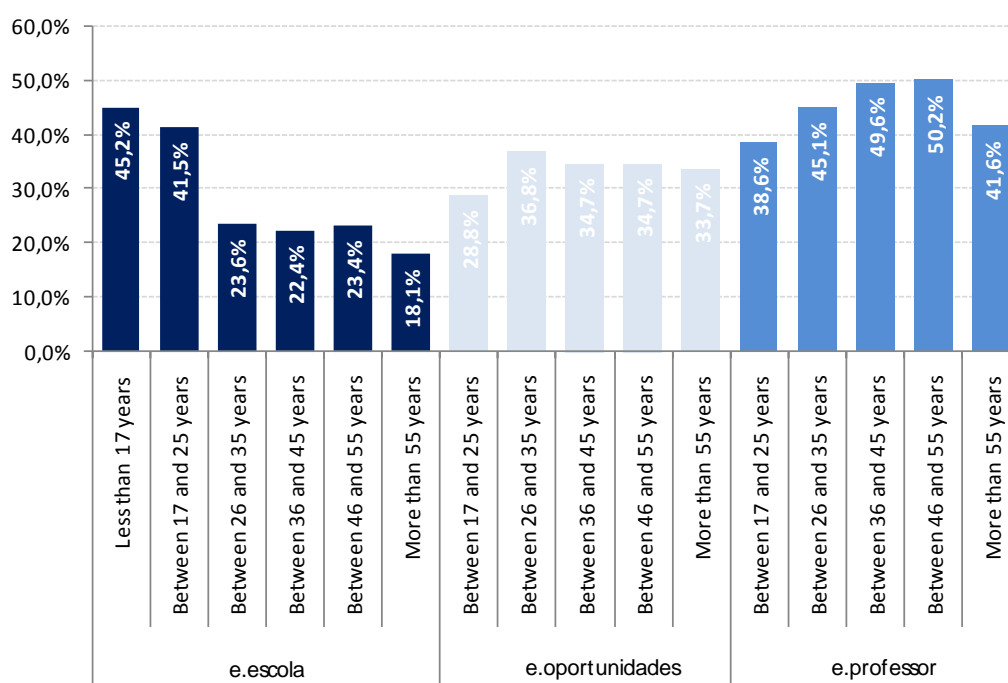
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In e.oportunidades initiative, the penetration rates are more uniform, with a minimum of 28,8% among individuals between 17 and 25 years old and a maximum of 36,8% among potential adherents between 26 and 35 years old. Such a situation was also observable in November 2008, with 24% of adherents between 17 and 25 years old and 32% to 33% of adherents on the remaining age range.

The e.professor initiative is particularly attractive for teachers with 36 to 45 years old and 46 to 55 years old, with adherence rates of 49,6% and 50,2%, respectively (see graph 8). These were the same age groups that, in November 2008, showed more appetite for the initiative. Then, there were 51% of adherents among individuals with ages between 36 and 45 years old and 52% among elements with ages between 46 and 55 years old.

**Graph 8 – e.iniciativas penetration rate by age ranges**

(Values in percentage)



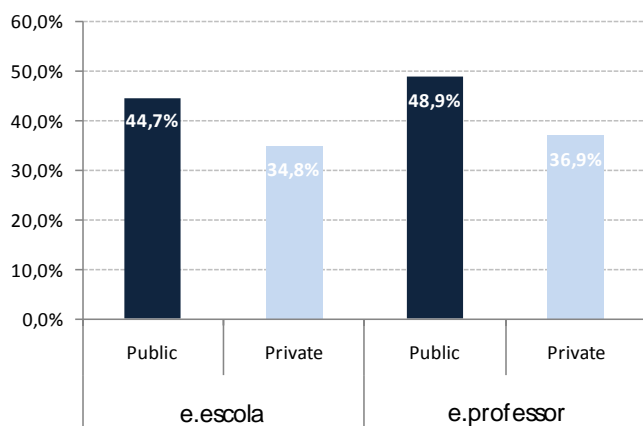
Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009

The e.escola and e.professor initiatives reveal greater capacity for attracting public schooling students and teachers. In reality, 44,7% of adherents among students and 48,9% among teachers of public schooling adhered to these initiatives. In contrast, there are penetration rates of 34,8% among private schooling students and 36,9% among teachers of that type of schooling. (See graph 9).

Such results reflect a tendency already observed in November 2008. By then, for the e.escola initiative, 40% of adherents came from public teaching (facing 37% among private schooling students) while for the e.professor initiative the adherences were of 52% among public schooling teachers, facing 32% among private schooling teachers.

**Graph 9 – e.iniciativas penetration rates by type of schooling**

(Values in percentage)



Source: ICP – ANACOM, based on FCM and GEPE/ME data, April 2009

**d) Operators used and traffic evolution**

**There is a progressive approaching between users and non-users adherents, relatively to traffic volume and APN<sup>8</sup> number of sessions.**

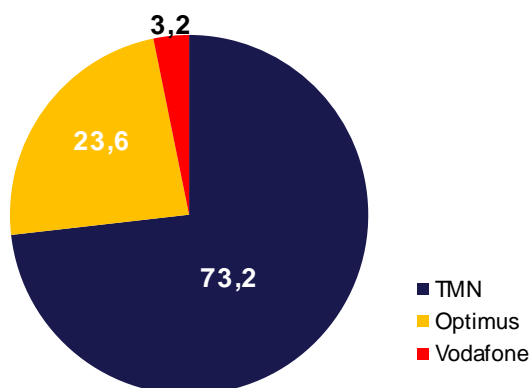
Preserved the fact that the three mobile operators aren't, in terms of offer, identically available on each moment during the program, because the volume of equipments made available by the operators is related to the level of the financial commitments assumed by each one in the ambit of the actions for the promotion of the Information Society, anticipated by the attribution of the qualification titles for the practice of the activity for the 3<sup>rd</sup> mobile generation, there is an accumulated majority of adherents using TMN (73,2%), being Optimus the second operator with a higher number of users (23,6%) (See graph 10). This situation reflects a kind of behaviour already observable in November 2008, moment in which TMN was responsible for around three in each four e.iniciativas accesses. Remark that this operator was the first to make the offer available, being responsible for all the e. iniciativas adherents registered on the first two months of the initiative (around twenty one thousand adherents).

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8 Access Point Node.

### Graph 10 – e.iniciativas accesses' distribution by operator

(Values in percentage)

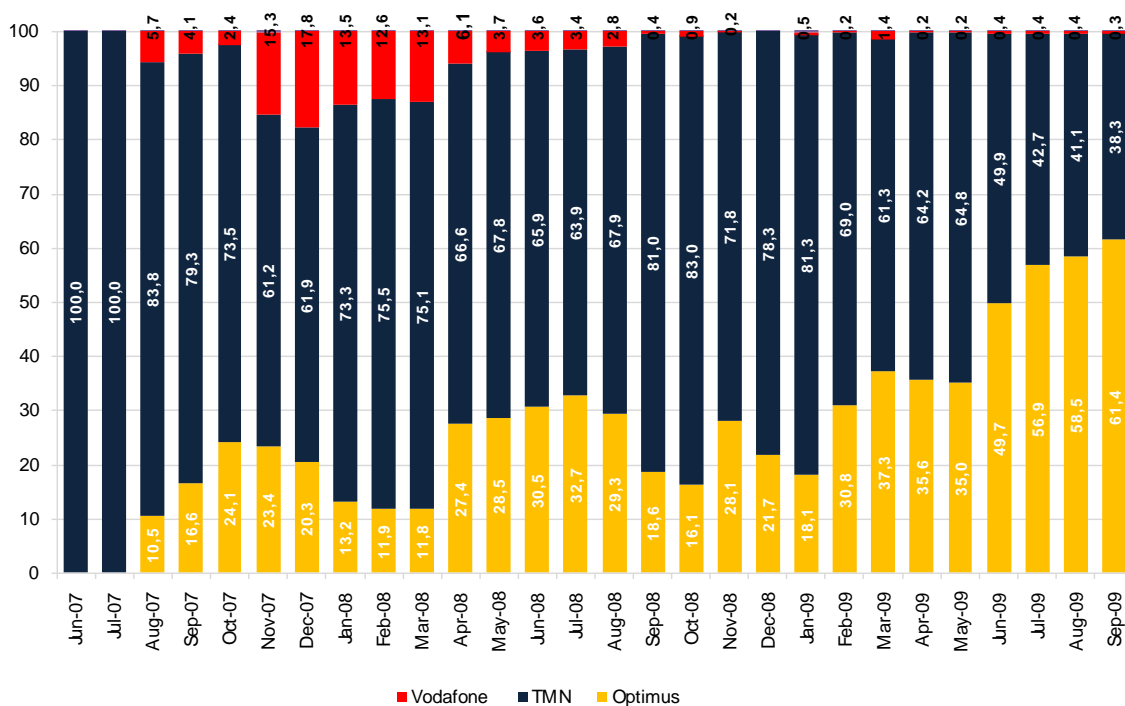


Source: ICP – ANACOM, based on FCM, October 2009

In the context previously mentioned, the monthly number of adherents to each operator registered oscillations, being that, till June 2009, TMN received, monthly, at least 60% of the new adherents. Since that date (August, September and October 2009), Optimus assumed special importance in the welcome of new adherents with 50% or more of the individuals choosing this operator (see graph 11).

### Graph 11 – Evolution of monthly quotas of e.iniciativas accesses

(values in percentage)



Source: ICP – ANACOM, based on FCM, October 2009

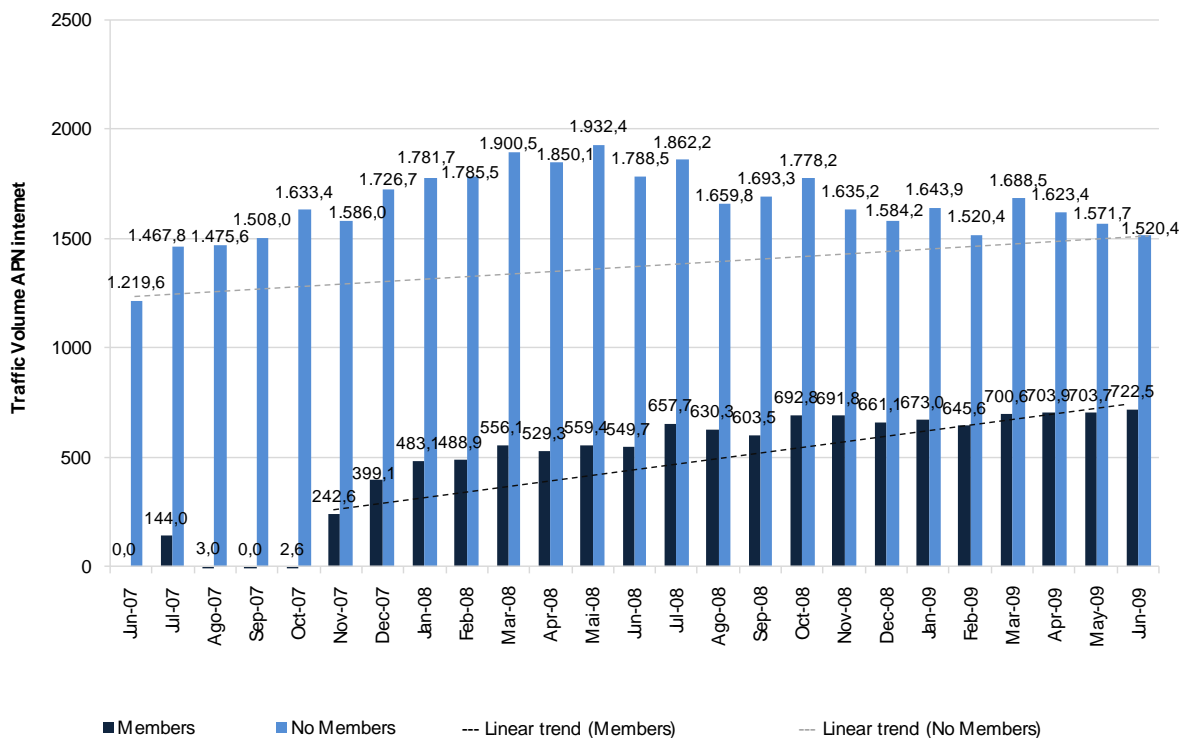
Respecting the intensity of traffic consumption, was made a comparison between July 2007 and July 2009, referring to the three mobile operators' traffic, between the traffic consumption *per capita* of those operators e.iniciativas clients and the rest of their broadband clients.

Although there is still a remarkable difference between adherents and non-adherents, respecting traffic volume (see graph 12), there is a progressive approach between the two publics (notice that among adherents there is a constant growth, for a relative stability among non-adherents), well expressed, besides, in the number of sessions (see graph13). i.e.:

- a) It is visible that there is a certain convergence tendency between the traffic consumption intensity of both clients categories, what may be explained, hypothetically, by the conjugation of the increase of use intensity of e.iniciativas adherents and by a pattern of consumption of e.iniciativas new adherents closer to the rest of the mobile broadband clients;
- b) Besides, the learning curve of e. initiatives adherents and non-adherents users may be different if we compare traffic consumption (in APN sessions and Mbps volume), with an average mobile broadband client, elapsed the same period of time after the availability of the technological platform.

**Graph 12 - APN traffic volume per active user during the report period – e.iniciativas adherents vs. e.iniciativas non-adherents**

(Values in Mbps)



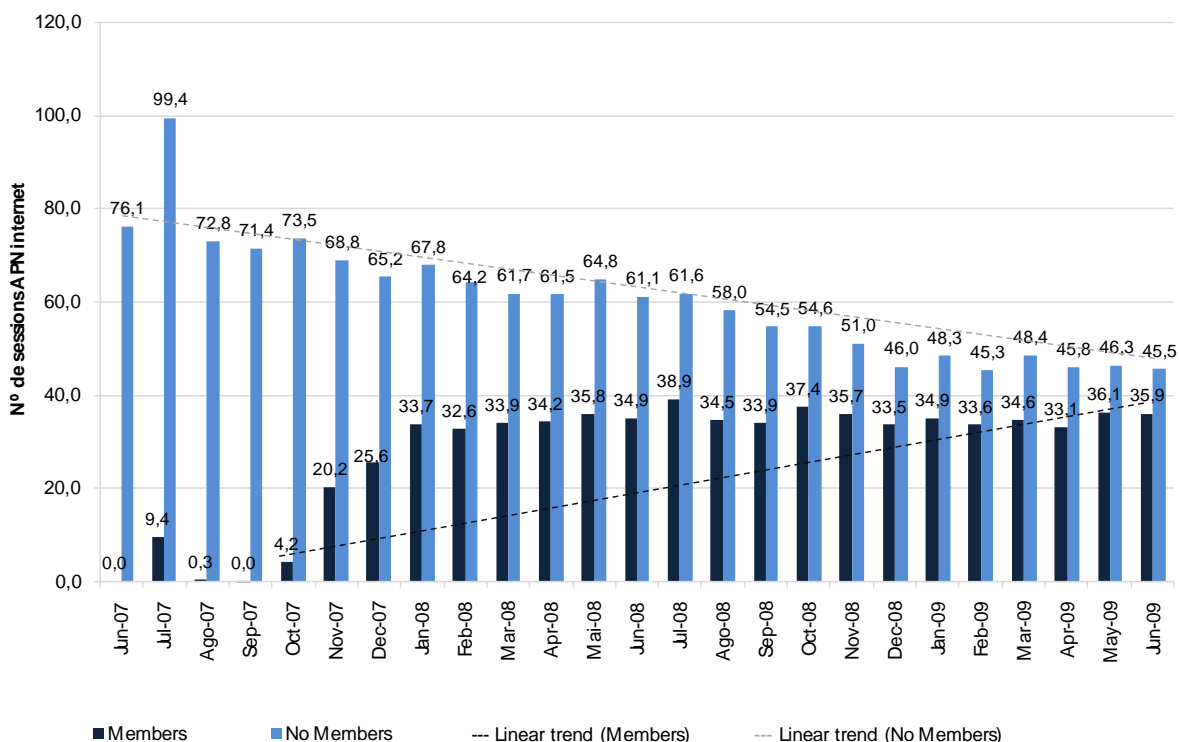
Source: ICP-ANACOM based on TMN, Optimus and Vodafone data, August 2009.



Summary

**Graph 13 – Number of APN sessions per active user during the report period - e.iniciativas adherents vs. e.iniciativas non-adherents**

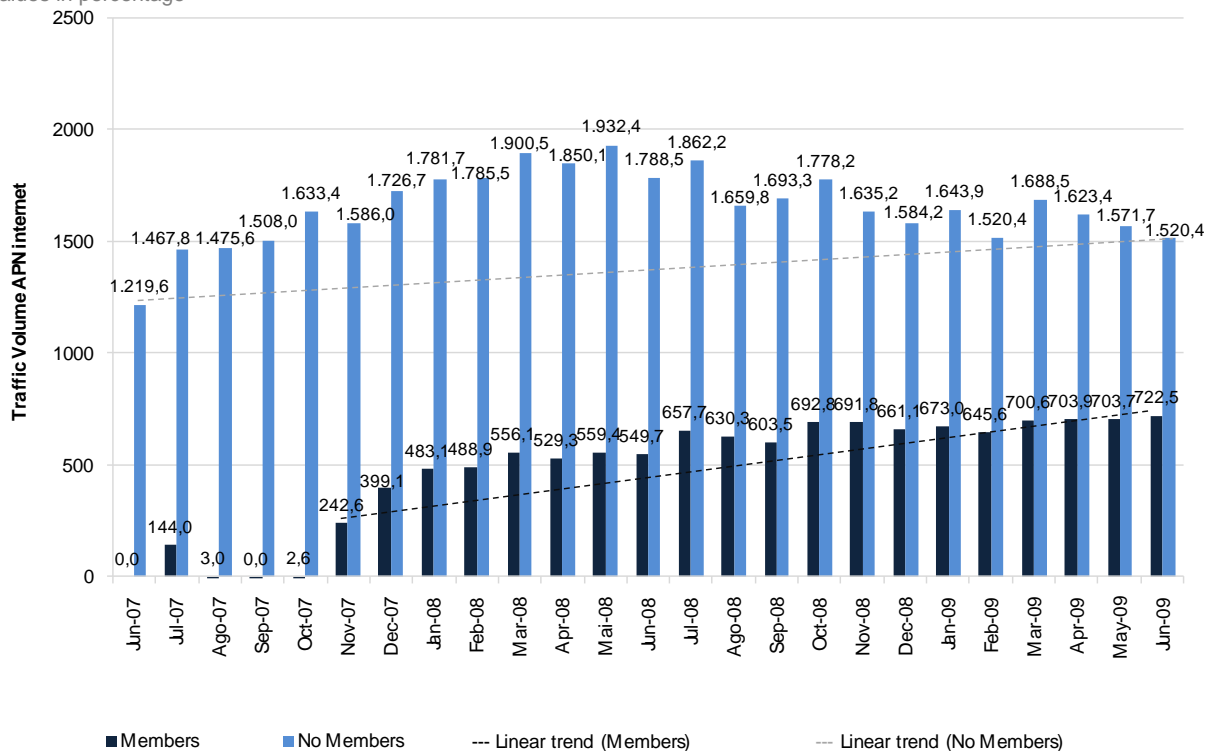
(values in thousands of sessions)



Source: ICP-ANACOM, based on TMN, Optimus and Vodafone data, August 2009.

**Graph 14 – Evolution of the average monthly traffic rate per client (e.iniciativas/all clients)**

(Values in percentage)



Source: ICP-ANACOM, based on TMN, Optimus and Vodafone data, August 2009.

## 2.2. CONCLUSIONS ORIGINATED ON THE SURVEY

In the inquiry process conducted among the recipients of the target e.iniciativas it was found to be a global membership of 43,8%, with the same value ranges from 40,1% of members in e.escola, 42,4% in e.professor and 48,9% in e.oportunidades.

For members, based on empirical work done, we conclude that:

### a) Relation with informatics and internet use, previously to adherence

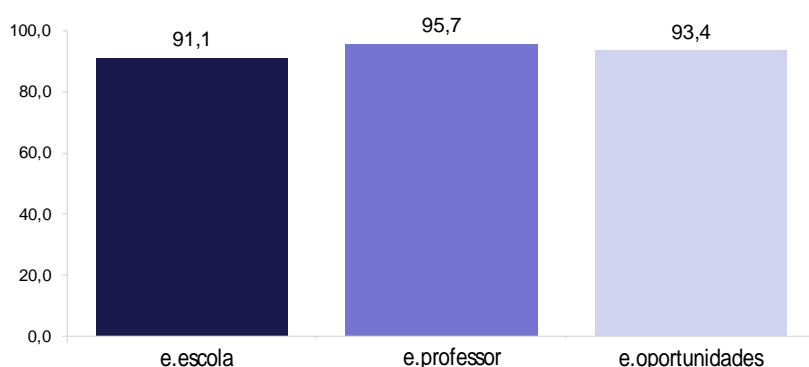
**Adherents come, in a smashing majority, from households where there were computers, though the computer park was fundamentally constituted by *desktop* computers.**

**In the case of internet, most of the adherents also come from households that had access to it: more than 80% among e.escola and e.professor adherents and a little more than 60% among e.oportunidades adherents.**

- a) Independently of the initiative, the smashing majority of adherents come from households where there were computers before the adherence. In reality, 91,1% of the adherents to e.escola had a computer in his household, being the situation identical to 95,7% of e.professor adherents and 93,4% of e.oportunidades adherents (see graph 15).

**Graph 15 – Percentage of households with computers among adherents**

(Values in percentage)



- b) It's clear, however, that that computers' possession matched fundamentally the presence of *desktop* computers. In fact, if for e.escola adherents we had an average of 1,3 computers per household, only 0,3 were laptops. In the case of e.professor adherents the relation was 1,5 to 0,5 and in the case of e.oportunidades adherents of 1,3 to 0,5 (see table 2);

**Table 2 – Computers average number per household among adherents** (average values)

		<b>e.escola</b>	<b>e.professor</b>	<b>e.oportunidades</b>
		n=615	n=652	n=839
<b>Desktops</b>	Average	1,1	0,9	0,8
	Median	1,0	1,0	1,0
	Mode	1	1	1
	Standard deviation	0,7	0,6	0,6
<b>Laptops</b>	Average	0,3	0,5	0,5
	Median	0,0	0,0	1,0
	Mode	0	0	1
	Standard deviation	0,5	0,8	0,5
<b>Total</b>	Average	1,3	1,5	1,3
	Median	1,0	1,0	1,0
	Mode	1	1	1
	Standard deviation	0,9	0,9	0,7

- c) The probability of buying a computer before the end of 2009, or even before the end of 2010, was higher among e.escola and e.professor adherents. Among e.oportunidades adherents the probability of buying a computer was residual, including with a median of 1 (in a scale from 1 to 10, 10 meaning high probability), in any of the tested periods of time (see table 3);

**Table 3 – Probability of buying a computer till the end of 2009 and 2010 among adherents**

(mean values)

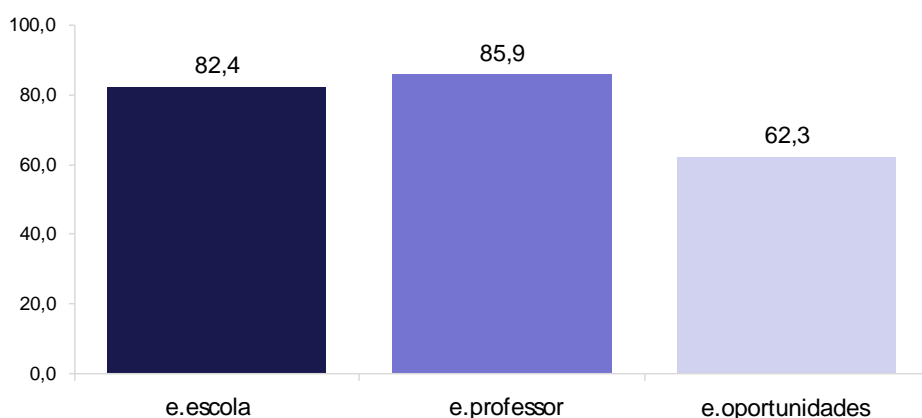
		<b>e.escola</b>	<b>e.professor</b>	<b>e.oportunidades</b>
		n=615	n=652	n=839
<b>Probability of buying a computer till the end of 2009</b>	Average	5,5	5,9	3,9
	Median	6,0	7,0	1,0
	Mode	1	10	1
	Standard deviation	3,2	3,7	3,7
<b>Probability of buying a computer till de end of 2010</b>	Average	3,8	3,3	2,4
	Median	3,0	2,0	1,0
	Mode	1	1	1
	Standard deviation	2,4	2,8	2,4

(1) Scale from 1 to 10, 1 meaning not a bit probable and 10 very probable.

- d) Though the majority of adherents come from households where there was an internet access, the situation is relatively different among the various initiatives. While 82,4% and 85,9% of e.escola and e.professor adherents, respectively, had internet, that was only true for 62,3% of e.oportunidades adherents (see graph 16). However, the available kind of access indicated a greater penetration of mobile internet among e.escola (42,2%) and e.professor (32,7%) adherents, and it was among e.oportunidades adherents (25,8%) that there was less representativeness of that kind of access (see table 4);

**Graph 16 – Percentage of households with internet access among adherents**

(Values in percentage)



**Table 4 – Type of internet access among adherents**

	e.escola	e.professor	e.oportunidades
	n=615	n=652	n=839
Fixed internet	38,3	52,8	35,6
Mobile internet	12,5	9,0	7,9
Both	29,7	23,7	17,9
Doesn't know / doesn't answer	19,5	14,5	38,6

- e) Similarly to computers buying, installation of internet ( or of a new access), appeared as less probable among e.oportunidades adherents, always with a median of 1, both for the installation probability till the end of 2009 and for the probability till the end of 2010 (see table 5).

**Table 5 – Probability of installing internet or a new access till the end of 2009 and 2010 among the adherents**

(average values)

		e.escola	e.professor	e.oportunidades
		n=615	n=652	n=839
<b>Probability of installation till the end of 2009</b>	Average	4,6	4,7	3,4
	Median	5,0	4,0	1,0
	Mode	1	1	1
	Standard Deviation	3,2	3,6	3,3
<b>Probability of installation till the end of 2010</b>	Average	3,7	2,6	1,7
	Median	3,0	1,0	1,0
	Mode	1	1	1
	Standard Deviation	2,6	2,2	1,5

(1) Scale from 1 to 10, 1 meaning not a bit probable and 10 very probable.

**b) Identify the reasons of adherence to e.iniciativas**

**Independently of the initiative, cost factor appears as one of the main aspects that motivate the adherence, being that in e.escola and e.professor initiatives mobility (laptop and mobile internet) is also attractive for a significant number of adherents.**

Among the reasons that justify adherence to e.escola initiative two factors emerge: the offer's mobility (laptop and mobile internet) and associated price, because it's inferior to the proposals existing on the market. In the first case, factor "Has already got a computer, but needs a laptop" (42,8%) is the most referred, to which factor "the offered internet Access allows accessing outdoor" (20,9%) is added. In the case of price component, 39,2% of the interviewed assumes that "The offer price is cheaper than those existing on the market". Additionally, according to previous data presented on this executive summary, notice that only a small percentage has adhered because they didn't have a computer (10,7%) and/or internet in their household (13,2%), (see table 6).

Among the reasons that justify the adherence to e.professor initiative three factors appear: the offer price, being cheaper than those existing on the market (51,7%), the payment ease (37,5%) and the fact that the interviewed needed a laptop (37,3%). i.e., similarly to e.escola initiative, cost and offer's mobility components seem to have a strong impact among a remarkable number of adherents (see table 6).

In the case of e.oportunidades adherents, the issue cost proves to be crucial: 46,7% argue with the offer price and 35,4% with the payment ease. Though mobility isn't referred so much as in the others initiatives, we must notice

## Summary

that 19,7% of the individuals admit having adhered because they didn't have a computer in their household, 10,6% because they wanted to increase the number of computers in their household and 12,9% because they were interested in learning how to use a computer (see table 6).

**Table 6 – Reasons for adherence to e. iniciativas**

(% in column)

	e.escola	e.professor	e.oportunidades
	n=615	n=652	n=839
The offer price is cheaper than the offers existents in market	39,2	51,7	46,7
Ease of payment	12,2	37,5	35,4
Does not have computer at home	10,7	9,0	19,7
Already have computer but is not the most profitable for internet access	9,3	7,6	6,0
Already have computer but need a laptop	42,8	37,3	0,4
Exists a computer at home but is needed another one	14,3	10,1	10,6
Does not have internet access at home	13,2	4,8	6,0
There is interest about learning how to use a computer	6,5	1,3	12,9
There is interest about learning how to use internet	5,5	5,9	7,6
Internet access provided allow to access outside home	20,9	7,4	6,9
Others	10,8	4,9	11,9
DK/DA	18,8	10,2	19,3

### c) Impacts of adherence to e.iniciativas

e.iniciativas show direct impacts on the adherents (particularly regarding a bigger regularity of computer and internet use), but they also have externalized impacts on the households, where a bigger regularity of computer and internet use is also observed. Besides, though in a smaller scale, the mobility given by the computer and internet access tends to be profited, for instance, a more intense use of the internet in the school or in the workplace being observed.

- If the e.escola initiative contributed for 8,9% of the interviewed having a computer, that happens with 4,3% of e.professor adherents and 6,6% of e.oportunidades adherents <sup>9</sup>;
- Among e.escola adherents, 17,6% started having a regular internet access, the same happening with 14,1% of the e.professor adherents and 37,7% of e.oportunidades adherents <sup>10</sup>;
- The initiative potentiated the regularity of computer use for any of the adherents groups.: 59,7% of students says that they began to use or increased the computer use intensity, the same happening to 59,8% of teachers and 72,9% of New Opportunities (*Novas Oportunidades*) trainees (see table 7);

<sup>9</sup> Verify tables B.3.1, C.3.1 and D.3.1 of the report.

<sup>10</sup> Verify tables B.3.2, C.3.2 e D.3.2 of the report.



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- f) Relatively to the places for using the internet, between the moment previous to adherence and the present moment, there are various behaviours according to the initiative. This way, in e.escola case, there aren't significant changes about the places where internet is used. i.e., home keeps being the preferred place: 80,1% accessed from home before the initiative and 78,0% keeps doing it. In this measure, adherents may have conquered an informatics mobility possibility, though it isn't immediately detectable. A different situation is identified among e.professor and e.oportunidades adherents. In the first case, though home keeps being the preferred place (although with a relevant decrease from 93,5% before the adherence to 77,8% after the initiative), there is a substantial increase of the number of interviewed acceding from school/university: from 18,7% before the adherence to 31,1% after the adherence. In the case of e.oportunidades adherents, to a substantial increase of internet users corresponds a predominant use: 83% says they use the e.oportunidades computer at home. It's true, however, we also can see the utilization of the mobility given by the computer with use's increases in workplaces (from 7,5% to 17,0%) and in school/university (from 1,3% to 13,4%);
- g) In e. escola and e.professor initiatives, the adherents tend to have a very similar internet use between e. initiatives access and any other access. In the case of e.escola adherents, 77,3% of the interviewed declare they research technical and scientific information with any other access, compared to 71,1% that says doing the same through the e.escola computer. In the same way, 85,5% of e.professor adherents declare to research technical and scientific information with any other access, to 70,6% that says doing the same through the e.professor computer. Or yet, 87,9% says they accede to e-mails trough any other internet Access and 77,1% declares doing it with the e.professor computer. Among e.oportunidades adherents it's clear a bigger use of the e.oportunidades access for technical and scientific information research: 51,7% says they do it with any access, to 80% with the e.oportunidades computer;
- h) There is a relative consensus about the positive impact of the e.iniciativas computer and access for the improvement of daily activities. Bigger among the e.escola adherents (average of 7,2, in a scale from 1 to 10, 10 meaning high contribution), for an average of 6,4 and 6,9 among e.professor and e.oportunidades adherents, respectively.

#### d) e.iniciativas improvement areas

**The adherents'satisfaction results reveal the possibility of thinking in improvements in the post-sale service, whether in the service's conditions (access signal stability and network coverage), whether on the assistance conditions in case of malfunction or connection problems. Anyway, according to the analysis of clusters that was made, in any of the initiatives we have more than 80.0% of sympathizers or fans<sup>11</sup>. In the case of e.escola, 96,8%, in e.professor 84,2% and in e.oportunidades 90,2%.**

About signalling the improvement areas, we can keep the following ideas:

<sup>11</sup> We consider sympathizers and fans the adherents revealing satisfaction with the initiative, fulfilment of initial expectations, positive contribution of it for daily activities and availability to recommend it.



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- a) In e.escola initiative, it's important to evaluate the mechanisms associated to the delivery of the computers and of the internet access plates. There are few cases (7,1%) where there wasn't waiting time, the interviewed having referred they waited, in average, six to seven weeks for the equipment delivery<sup>12</sup>. However, we must notice that this waiting times corresponds to an improvement in the waiting times registered in 2008, when average waiting times of 8 to 9 weeks were registered<sup>13</sup>;
- b) The previous conclusion is also valid to the e.professor initiative. All the interviewed said there were waiting times, and in average, they referred waiting for six weeks for the equipment delivery<sup>14</sup>. Once more, this time corresponds to an improvement in the waiting times registered in 2008, when average waiting times of 8 weeks were registered<sup>15</sup>;
- c) In the same way, for the e.oportunidades initiative, it is also convenient to reflect about the mechanisms associated to the computers and internet access plates' delivery. All the interviewed had waiting times for the equipment, and in average they mentioned they waited for six weeks<sup>16</sup>. Also in the e.oportunidades initiative this waiting time corresponds to an improvement of the waiting times registered in 2008, when the average waiting time was 8 weeks<sup>17</sup>.

It also matters, relatively to the adherents, to pay attention on the following improvement points:

- a) In the case of e.escola initiative, factors related to post-sale service must deserve special attention, in particular the stability of the internet access signal<sup>18</sup> and the support service in cases of malfunction or connection problems (see table 8 and figure 1);

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12 See table B.4.3 of the report.

13 Cf. ANACOM, Survey on Adherence and Impact, February 2009.

14 See table C.4.2 of the report.

15 Cf. ANACOM, Survey on Adherence and Impact, February 2009.

16 See table D.4.2 of the report.

17 Cf. ANACOM, Survey on Adherence and Impact, February 2009.

18 Though it isn't possible to establish in detail, by operator, the regional origin of this result, because the inquiry data cross by NUTS III reveals absence of statistics significance. Anyway, the global cross of the information by operator reveals a smaller satisfaction with TMN and a bit better with Optimus. In a scale from 1 to 10, 10 meaning very satisfied, TMN users give 6,7 to signal stability and support service. Relatively to Optimus, there's an average of 7,5 for signal stability and 6,7 for support service. Vodafone's evaluation must be careful because there are only 13 observations, without statistical relevance, giving an average of 8,2 for signal stability and 8,7 to support service.

**Table 8 – Declared satisfaction and factors’ importance for e.escola adherents**

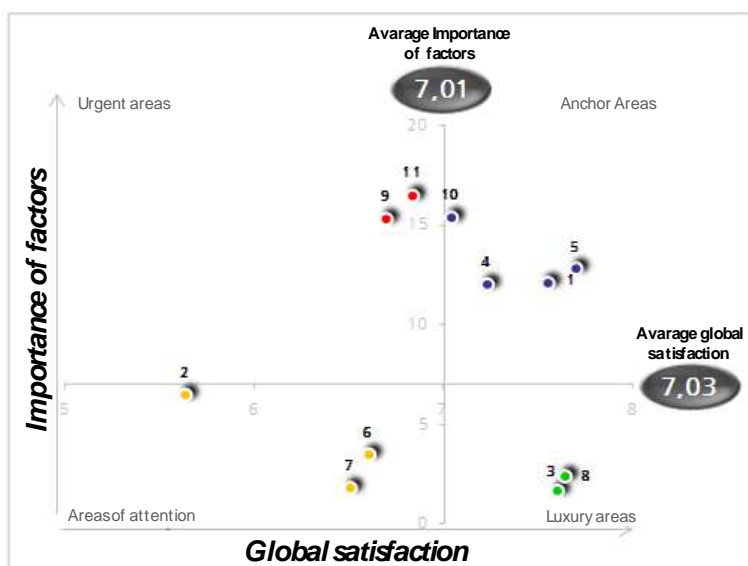
n=615	Declared satisfaction (1)	Factors’ importance (%) (2)
1. Adherence ease (bureaucracy associated to the adherence process)	7,6	12,1
2. Obligation of a contract plan	5,6	6,5
3. Initial down payment value	7,6	1,7
4. Monthly payment value	7,2	12,0
5. Characteristics of the available computers	7,7	12,8
6. Internet access speed	6,6	3,5
7. Waiting time for having the equipment	6,5	1,8
8. Price/ quality relation	7,6	2,4
9. Support service in case of malfunction or connection problems	6,7	15,3
10. Net geographical range	7,0	15,4
11. Stability of the internet access signal	6,8	16,5
Factors’ weighted average satisfaction	<b>7,01</b>	(3)
Factors’ average importance	(3)	<b>7,03</b>

(1) Average values. Scale from 1 to 10, 1 meaning not a bit satisfied and 10 very satisfied.

(2) Results expressed in percentage, whose addition is equal to 100%.

(3) Doesn't apply.

**Figure 1 – Projection of the cross results of importance and satisfaction for the e.escola initiative**



- b) Because of the satisfaction results of the e.professor adherents, it seems to be pertinent to pay special attention to factors related to post-sale service, in particular to the support service in case of

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malfunction or connection problems<sup>19</sup>. To this one, factors that may make rethinking the current offer configuration must be added, particularly the available internet speeds, the waiting time for the equipment and the obligation of contract for three years (see table 9 and figure 2);

**Table 9 – Satisfaction declared and factors' importance for e.professor initiative adherents**

n=652	Declared satisfaction (1)	Factors importance (%) (2)
1. Adherence ease (bureaucracy associated to the adherence process)	6,9	3,6
2. Obligation of a contract plan	4,3	10,9
3. Initial down payment value	6,8	4,3
4. Monthly payment value	6,1	7,9
5. Characteristics of the computers available	5,8	13,7
6. Internet access speed	4,8	12,3
7. Waiting time for having the equipment	5,7	6,7
8. Price/ quality relation	6,3	17,0
9. Support service in case of malfunction or connection problems	5,4	16,9
10. Net geographical range	6,2	1,7
11. Stability of the Internet access signal	5,8	4,9
Factors' weighted average satisfaction	<b>5,85</b>	(3)
Factors' average importance	(3)	<b>5,65</b>

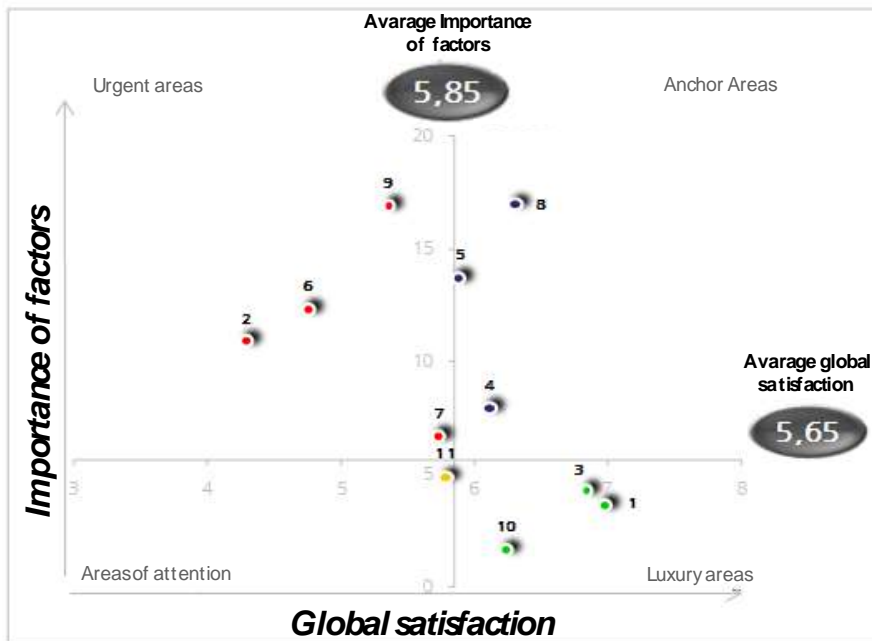
1) Average values. Scale from 1 to 10, 1 meaning not a bit satisfied and 10 very satisfied.

(2) Results expressed in percentage, whose addition is equal to 100%.

(3) Doesn't apply

<sup>19</sup> The global cross of information by operator reveals a smaller satisfaction with Vodafone and equivalent values for TMN and Optimus. In a scale from 1 to 10, 10 meaning very satisfied, Vodafone users give 4,6 to the support service, against 5,3 among TMN users and 5,5 among Optimus users.

**Figure 2 – Projection of the cross results of importance and satisfaction for the e.professor initiative adherents**



- c) Among e.oportunidades adherents we must reflect about factors related to post-sale service, particularly about stability of the internet access signal and geographical network coverage (see table 10 and figure 3)<sup>20</sup>.

<sup>20</sup> Though it isn't possible to establish in detail, by operator, the regional origin of this result, because the inquiry data cross by NUTS III reveals absence of statistics significance. Anyway, the global cross of the information by operator reveals a smaller satisfaction with TMN and a bit better with Optimus. In a scale from 1 to 10, 10 meaning very satisfied, TMN users give 5,9 to signal stability and 6,0 to support service. Relatively to Optimus, there's an average of 6,6 for signal stability and 6,8 for support service. Vodafone's evaluation must be careful because there are only 21 observations, without statistical relevance, giving an average of 4,6 for signal stability and 5,3 to support service.

**Table 10 – Satisfaction declared and importance of factors for e.oportunidades adherents**

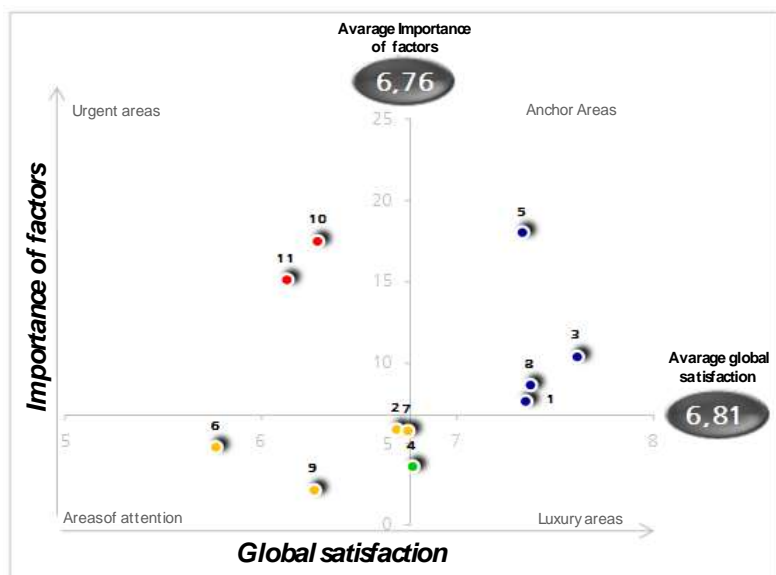
n=839	Declared satisfaction (1)	Factors' importance (%) (2)
1. Adherence ease (bureaucracy associated to the adherence process)	7,4	7,6
2. Obligation of a contract plan	6,7	5,9
3. Initial down payment value	7,6	10,4
4. Monthly payment value	6,8	3,6
5. Characteristics of the computers available	7,3	18,6
6. Internet access speed	5,8	4,8
7. Waiting time for having the equipment	6,8	5,8
8. Price/ quality relation	7,4	8,6
9. Support service in case of malfunction or connection problems	6,3	2,2
10. Net geographical range	6,3	17,5
11. Stability of the internet access signal	6,1	15,1
<b>Factors' weighted average satisfaction</b>	<b>6,76</b>	(3)
<b>Factors' average importance</b>	(3)	<b>6,81</b>

(1) Average values. Scale from 1 to 10, 1 meaning not a bit satisfied and 10 very satisfied.

(2) Results expressed in percentage, whose addition is equal to 100%.

(3) Doesn't apply.

**Figure 3 – Projection of crossed results of importance and satisfaction for the e.oportunidades adherents**



We can also notice, for each of the e.iniciativas, that:

- a) Among the current e.escola adherents is evident a high satisfaction with the program, translated in high levels of recommendation and low indexes of abandon attempt, and those can be fundamental agents for the attraction of other individuals, through a proximity communication. Besides, *clusters* analysis reveals 85,8% of sympathizers and 11,0% of fans<sup>21</sup>;
- c) The e.professor adherents' satisfaction and recommendation results aren't particularly expressive, though there aren't also high abandon attempts. Still it's clear that among the teachers a set of measures must be taken to improve the reading of the program performance, particularly about factors connected to the post-sale service. Even because the *clusters* analysis reveals that there are 45,0% of sympathizers teachers, to 10,8% of skeptical and 5,0% of critic;
- d) Among the current e.oportunidades users the situation is similar to the one existing for e.escola: adherents reveal a high satisfaction, translated in high recommendation levels and low indexes of abandon attempt. In reality, there are 60,0% of sympathizers and 29,6% of fans, to 9,7% of skeptical and 0,1% of critic.

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21 The descriptions of the groups resulting of the *clusters* are a responsibility of KPMG and intend to illustrate the positioning each group of adherents assumes facing the e.iniciativas. In the case we chose to consider four descriptions: critic, skeptical, sympathizers and fans. Critics' group includes individuals with a less positive positioning regarding e.iniciativas, that assume they don't recommend the adherence; skeptical group includes individuals that don't have such a unfavorable positioning as the critics will also hardly recommend the adherence; sympathizers include individuals that show a favorable behavior regarding e.iniciativas and tend to be available to recommend adherence; finally, fans are the individuals with bigger availability to recommend e.iniciativas and tend to assume a extremely favorable position.