

APPENDIX

APPENDIX 1 – INTERVIEWS EXCERPTS

Interview October 3, 2016 – Translation Excerpt

“(…) Paulo Pereira (**PP**): What would you say are Lusíadas’ main strengths?

Anonymous Employee (**AE**): Definitely our service quality, which is internationally accredited. It comes at a steep price for patients but it’s worth it. We also have a very good relationship with our suppliers, mainly a number of medical equipment suppliers and some pharma companies, and our parents companies (UHG and Amil) which helps in the smooth operation of the company.

PP: And what about weaknesses?

AE: As I’ve mentioned before, price is a big constraint. A big part of the population can’t pay for our services out of pocket, and insurance isn’t that cheap also. Also, our systems have been difficult to implement in our new units, which has been slowing down their integration process in a major way. Besides that, competition in our industry is very heavy, there are strong companies all trying to be number one and everyone is competing for the same customers.

(…)

PP: What’s Lusíadas Competitive Advantage?

AE: Our good relationship with our parent companies gives us a lot of advantages that our competitors don’t have. Also, we have a strong and growing network of internationally accredited hospitals and outpatient centers.

(…)

PP: What are the most important factors when choosing an hospital’s location?

AE: Hospitals should be located in easily accessible places with a large population. Also, we try to have hospitals where the population has higher levels of income, because our service is usually quite expensive. (…)”

Interview November 20, 2016 – Translation Excerpt

“ (...) **PP:** After conducting the macro analysis I’ve arrived to the conclusion that Finland, France, Germany, Luxembourg, Spain and Sweden are the most attractive countries for the internationalization of Lusíadas, but I believe that Luxembourg is too small in both size and population to be attractive to the company. What do you think?

AE: Yes, even though Luxembourg can be a good opportunity for the company, as this is the first time we are looking to internationalize I think we should concentrate our efforts on countries that will allow us to grow. (...)”

APPENDIX 2 - MACRO ANALYSIS

Variable	MARKET POTENTIAL							ECONOMICS				CULTURE	INFRASTRUCTURE AND GEO.			LEGAL				POLITICS			
	Population	Population with 65 or more years	Pop growth (2006-2012)	Projected population n YYY growth until 2080	Population density	Mean income	Ease of doing business index	GDP 20 year growth	GDP per capita	Employment rates of recent graduates	Tertiary education completed	HICP	Cultural similarity to Portugal	Country area	Capital distance to Lisbon	IT security	Regulatory quality	Corporate tax rate	Procedures required to start a business	Tax payments (number)	Government effectiveness	Control of corruption	Political stability
Source	Eurostat, 2015	Eurostat, 2015	Eurostat, 2015	Eurostat, 2014	Eurostat, 2014	Eurostat, 2014	World Bank, 2016	Eurostat, 2015	Eurostat, 2015	Eurostat, 2015	Eurostat, 2015	Eurostat, 2015	Geert Hofstede	World Bank, 2015	Google Maps	Eurostat 2010	World Bank, 2015	World Bank, 2015	World Bank, 2015	World Bank, 2015	World Bank, 2015	World Bank, 2015	World Bank, 2015
Unit	Mn people	% of tot pop	% CAGR	% CAGR	people per km ²	EUR	rank	% CAGR	EUR	% of young graduates	% of adults 15-64	index	% similarity	km ²	km	% of enterprises reporting IT incidents	from -2,5 to 2,5	% of profits	# of procedures	# of tax payments	from -2,5 to 2,5	from -2,5 to 2,5	from -2,5 to 2,5
Austria	8,6	18,47%	0,43%	0,17%	104	26 080	21	3,12%	39 400	86,9%	19,6%	100,95	50,6%	82 531	2 301	6%	1,43	51,7%	8	12	1,47	1,49	1,19
Belgium	11,3	18,04%	0,77%	0,59%	370	23 429	43	3,12%	36 500	79,5%	28,7%	100,74	63,3%	30 280	1 714	12%	1,28	58,4%	3	11	1,44	1,58	0,60
Bulgaria	7,2	20,00%	-0,64%	-0,58%	66	3 907	38	7,18%	6 100	74,6%	22,2%	99,60	86,7%	108 560	2 934	7%	0,55	27,0%	4	14	0,22	-0,31	0,02
Croatia	4,2	18,82%	-0,23%	-0,31%	75	5 799	40	4,76%	10 400	62,6%	20,3%	98,99	91,5%	55 960	2 128	7%	0,36	20,0%	7	19	0,51	0,20	0,58
Cyprus	0,8	14,61%	1,45%	0,56%	93	18 418	47	4,30%	20 800	68,8%	25,6%	98,67	68,1%	9 240	3 758	26%	1,06	24,4%	6	27	1,04	0,98	0,54
Czech Republic	10,5	17,84%	0,34%	0,07%	136	8 600	36	6,71%	15 800	82,2%	12,4%	99,40	76,5%	77 230	2 302	22%	1,08	50,4%	8	8	1,05	0,39	0,96
Denmark	5,7	18,57%	0,47%	0,28%	132	31 108	3	3,21%	46 800	81,7%	27,3%	99,80	32,8%	42 430	2 480	24%	1,73	24,5%	4	10	1,85	2,23	0,89
Estonia	1,3	18,76%	-0,31%	-0,37%	30	8 820	16	10,20%	15 400	80,6%	15,1%	99,01	63,4%	42 390	3 313	9%	1,66	49,4%	3	8	1,09	1,25	0,62
Finland	5,5	19,95%	0,45%	0,24%	18	26 130	10	3,62%	38 200	75,5%	19,2%	99,98	74,1%	303 890	3 364	26%	1,83	37,9%	3	8	1,82	2,28	1,04
France	66,4	18,39%	0,55%	0,27%	105	24 612	27	2,90%	32 800	72,3%	26,0%	100,09	78,5%	547 557	1 455	6%	1,15	62,7%	5	8	1,44	1,28	0,27
Germany	81,2	21,05%	-0,17%	-0,32%	227	22 537	15	2,15%	37 100	90,4%	19,8%	100,10	54,8%	348 540	2 315	7%	1,67	48,8%	9	9	1,74	1,82	0,72
Greece	10,9	20,90%	-0,15%	-0,54%	83	8 879	60	2,63%	16 200	45,2%	31,5%	99,98	92,3%	128 900	2 855	23%	0,40	49,6%	5	8	0,25	-0,13	-0,23
Hungary	9,9	17,90%	-0,25%	-0,20%	106	5 124	42	5,82%	11 100	80,4%	21,9%	99,66	56,5%	90 530	2 472	4%	0,77	48,4%	4	11	0,49	0,10	0,73
Ireland	4,6	12,98%	1,06%	0,38%	68	22 936	17	8,20%	55 100	75,3%	24,9%	99,60	44,7%	68 890	1 643	16%	1,81	25,9%	4	9	1,54	1,64	0,93
Italy	60,8	21,74%	0,51%	0,10%	201	17 914	45	3,08%	27 000	48,5%	41,9%	100,60	66,7%	294 140	1 865	16%	0,73	64,8%	5	14	0,45	-0,05	0,34
Latvia	2,0	19,39%	-1,27%	-0,59%	32	6 324	22	9,27%	12 300	78,8%	15,6%	99,29	65,0%	62 190	3 178	9%	1,09	35,9%	4	7	1,10	0,40	0,45
Lithuania	2,9	18,73%	-1,31%	-0,70%	47	5 975	20	10,44%	12 900	82,1%	13,8%	99,98	65,2%	62 675	3 060	19%	1,28	42,6%	2	11	1,20	0,56	0,70
Luxembourg	0,6	14,18%	2,05%	1,28%	215	38 555	61	5,84%	89 900	84,7%	30,3%	99,66	73,2%	2 590	1 713	9%	1,67	20,1%	6	23	1,72	2,12	1,41
Malta	0,4	18,51%	0,65%	0,19%	1 352	14 291	80	5,83%	20 300	95,1%	52,4%	98,60	83,9%	320	2 098	14%	1,17	41,3%	10	7	0,85	0,92	1,04
Netherlands	16,9	17,80%	0,38%	-0,01%	501	23 190	28	3,48%	40 000	88,2%	28,4%	99,53	50,5%	33 670	1 863	19%	1,77	41,0%	4	9	1,84	1,89	0,93
Poland	38,0	15,42%	-0,04%	-0,40%	124	6 163	25	7,09%	11 100	77,4%	15,2%	99,60	86,4%	306 210	2 612	8%	1,00	40,3%	4	7	0,80	0,58	0,87
Romania	19,9	16,99%	-0,75%	-0,30%	87	2 470	37	8,97%	8 100	68,1%	29,4%	99,50	90,3%	230 030	2 978	15%	0,59	42,0%	5	14	-0,04	-0,05	0,20
Slovakia	5,4	13,96%	0,10%	-0,52%	111	7 484	29	8,55%	14 500	75,2%	14,6%	99,53	33,7%	48 088	2 551	20%	0,79	51,2%	6	10	0,84	0,15	0,96
Slovenia	2,1	17,91%	0,33%	-0,05%	102	12 843	29	4,41%	18 700	71,5%	17,4%	99,66	94,3%	20 140	2 261	7%	0,62	31,0%	2	10	0,97	0,73	0,92
Spain	46,4	18,50%	0,60%	0,04%	93	15 405	33	4,24%	23 200	65,2%	43,5%	100,09	91,8%	500 210	503	19%	0,79	50,0%	7	9	1,18	0,49	0,29
Sweden	9,7	19,62%	0,83%	0,57%	24	28 886	8	4,05%	45 600	85,9%	21,6%	100,54	35,5%	407 340	3 072	16%	1,81	49,1%	3	6	1,81	2,25	0,97
0-10																							
Austria	1	6	5	4	1	7	8	1	4	8	2	10	3	2	4	9	7	3	3	7	8	7	9
Belgium	1	6	6	7	3	6	5	1	4	7	4	9	5	1	6	6	6	1	9	8	8	7	5
Bulgaria	1	8	2	1	0	0	5	6	0	6	2	4	9	2	3	9	1	8	8	6	1	0	1
Croatia	0	7	3	2	0	1	5	3	1	3	2	2	10	1	5	9	0	10	4	4	3	2	5
Cyprus	0	2	8	6	1	4	4	3	2	5	3	0	6	0	0	0	5	9	5	0	6	5	5
Czech Republic	1	6	5	4	1	2	6	6	1	7	0	3	7	1	4	2	5	3	3	9	6	3	7
Denmark	1	6	5	5	1	8	10	1	5	7	4	5	0	1	4	1	9	9	8	8	10	10	7
Estonia	0	7	3	2	0	2	8	10	1	7	1	2	5	1	1	8	9	3	9	9	6	6	5
Finland	1	8	5	5	0	7	9	2	4	6	2	6	7	6	1	0	10	6	9	9	10	10	8
France	8	6	6	5	1	6	7	1	3	5	3	6	7	10	7	9	5	0	6	9	8	6	3
Germany	10	9	3	2	2	6	8	0	4	9	2	6	4	6	4	9	9	4	1	9	9	8	6
Greece	1	9	3	1	0	2	3	1	1	0	5	6	10	2	3	1	0	3	6	9	2	1	0
Hungary	1	6	3	3	1	1	5	4	1	7	2	5	4	2	4	10	3	4	8	8	3	2	6
Ireland	1	0	7	5	0	6	8	7	6	6	3	4	2	1	6	5	10	9	8	9	8	8	7
Italy	7	10	5	4	1	4	5	1	2	1	7	9	6	5	6	5	2	0	6	6	3	1	3
Latvia	0	7	0	1	0	1	8	9	1	7	1	3	5	1	2	8	5	6	8	10	6	3	4
Lithuania	0	7	0	0	0	1	8	10	1	7	0	6	5	1	2	3	6	5	10	8	7	3	6
Luxembourg	0	1	10	10	1	10	2	4	10	8	4	5	7	0	6	8	9	10	5	2	9	9	10
Malta	0	6	6	4	10	3	0	4	2	10	10	0	8	0	5	5	6	5	0	10	5	5	8
Netherlands	2	5	5	3	4	6	7	2	4	9	4	4	3	1	6	3	10	5	8	9	10	8	7
Poland	5	3	4	1	1	1	7	6	1	6	1	4	9	6	4	8	4	5	8	10	4	3	7
Romania	2	5	2	2	1	0	6	8	0	5	4	4	9	4	2	5	2	5	6	6	0	1	3
Slovakia	1	1	4	1	1	1	7	8	1	6	1	4	0	1	4	3	3	3	5	8	5	2	7
Slovenia	0	6	5	3	1	3	7	3	2	5	1	5	10	0	5	9	2	8	10	8	5	4	7
Spain	6	6	6	4	1	4	6	3	2	4	8	6	10	9	10	3	3	3	4	9	6	3	3
Sweden	1	8	6	6	0	7	9	2	5	8	2	8	0	7	2	5	10	4	9	10	10	10	7
WEIGHT	4,6%	4,6%	4,6%	4,6%	5,0%	5,0%	4,6%	2,4%	2,4%	2,4%	2,4%	2,4%	10,8%	4,2%	4,2%	4,2%	4,2%	4,2%	4,2%	4,2%	4,8%	4,8%	4,8%

FINAL SCORE	RANK
5,03	13
5,24	8
3,90	21
4,00	20
3,68	24
4,22	17
5,20	10
4,55	15
5,84	3
5,89	2
5,66	5
3,43	25
3,81	22
5,22	9
4,46	16
4,10	19
4,14	18
6,21	1
5,10	12
5,32	7
4,95	14
3,77	23
2,98	26
5,10	11
5,40	6
5,72	4

APPENDIX 3 - MICRO ANALYSIS

Variable	State of the Healthcare Sector												State of the Health														
	Health Expenditure						Health Equipment and Infrastructure				Personnel		Health Perception			Unhealthy Habits			Health Level Outcomes								
	Total health expenditure	Total health expenditure	Private health expenditure	Out-of-pocket health expenditure	Risk of catastrophic expenditure for surgical care	Risk of impoverishing expenditure for surgical care	Length of stay	Number of hospital beds	Radiotherapy units	Linear acceleration units	Physician density	Nursing and midwifery personnel density	Specialist surgical force density	Population that perceives its health as being good or very good	No unmet needs	No unmet needs, higher income population	Daily smokers	Alcohol consumption	Obese population (BMI>29)	Healthy life years males	Healthy life years females	People with long term health issues	Cancer deaths	Cardiovascular diseases deaths	Diabetes deaths	Chronic respiratory diseases deaths	
World Bank, 2014	World Bank, 2014	World Bank, 2014	World Health Organization, 2014	World Bank, 2014	World Bank, 2014	Eurostat, 2014	Eurostat, 2014	World Health Organization, 2013	World Health Organization, 2010	World Bank, 2010	World Bank, 2010	World Bank, 2014	Eurostat, 2014	Eurostat, 2014	Eurostat, 2014	OECD, 2014	OECD, 2014	Eurostat 2014	Eurostat, 2014	Eurostat, 2014	Eurostat, 2014	World Health Organization, 2012	World Health Organization, 2012	World Health Organization, 2012	World Health Organization, 2012		
Unit	Current Bn. USD	% of GDP	% of total health expenditure	% of private expenditure on health	% of total population	% of total population	number of days	number of beds per hundred thousand people	number per 1M people	number per 1M people	per 1000 population	per 1000 population	per 1000 population	% of the total population	% of total population with no unmet needs	% of higher income population with no unmet needs	% of population aged 15+	liters per capita	% of total population	years	years	% of total population	# per 100k people	# per 100k people	# per 100k people	# per 100k people	
Finland	25,1	9,7%	24,7%	73,8%	1,6%	0,0%	6,7	453,0	7,4	7,5	2,9	10,8	1,10	69%	95,3%	97,4%	15,40%	8,8	17,8%	58,7	57,5	45,9%	102,2	145,9	4,2	12,6	
France	326,5	11,5%	21,8%	29,1%	0,5%	0,2%	5,8 (e)	621,2	7,5	6,6	3,4	9,3 (c)	0,63	68%	93,7%	95,5%	22,40%	11,5	14,7%	63,4	64,2	37,0%	132,2	85,6	7,1	12,4	
Germany	437,0	11,3%	23,0%	57,3%	0,3%	0,0%	7,6	822,8	6,4	6,2	3,7	11,4	1,13 (e)	65%	93,6%	98,5%	20,9%(e)	10,9 (e)	16,4%	56,4	56,5	38,7%	122,0	142,7	10,3	19,4	
Netherlands	95,8	10,9%	13,0%	40,2%	2,3%	0,1%	6,4 (a)	465,7 (b)	7,2	7,3	2,9	15,2 (d)	0,53 (e)	77%	98,6%	98,7%	19,10%	8,4	12,9%	63,3	59,0	34,8%	146,7	104,8	7,9	22,5	
Spain	123,6	9,0%	29,1%	82,4%	4,4%	0,6%	6,0	296,8	4,2	3,6	5,1	6,0	0,42	73%	94,6%	96,8%	23,00%	9,8 (f)	16,2%	65,0	65,0	29,6%	119,8	96,8	8,1	26,6	
Sweden	65,7	11,9%	16,0%	88,1%	1,1%	0,0%	5,4	253,7	6,9	8,3	3,8	11,9	0,85 (a)	80%	90,8%	97,3%	11,90%	7,2	13,4%	73,6	73,6	35,0%	110,3	132,0	8,2	15,2	
0-10																											
Finland	0	2	7	8	3	0	6	6	0	2	10	5	0	7	4	4	3	4	10	9	9	10	0	10	0	0	
France	7	9	5	0	0	3	2	4	0	4	7	6	7	8	6	10	9	10	4	6	5	5	7	0	5	0	
Germany	10	8	6	5	0	0	10	0	3	5	6	4	0	10	6	1	8	9	7	10	10	6	4	9	10	5	
Netherlands	2	6	0	2	5	2	4	6	1	2	10	0	8	2	0	0	6	3	0	6	9	3	10	3	6	7	
Spain	2	0	10	9	10	10	3	9	10	10	0	10	10	5	5	6	10	6	7	5	5	0	4	2	6	10	
Sweden	1	10	2	10	2	0	0	10	2	0	6	4	4	0	10	4	0	0	1	0	0	3	2	8	7	2	
Weights	3,70%	3,70%	3,70%	3,70%	3,70%	3,70%	5,56%	5,56%	5,56%	5,56%	7,41%	7,41%	7,41%	3,70%	3,70%	3,70%	3,70%	3,70%	3,70%	1,59%	1,59%	1,59%	1,59%	1,59%	1,59%	1,59%	

FINAL SCORE	RANK
4,47	4
4,62	3
5,20	2
3,24	5
6,00	1
3,19	6

(a) Latest available data is from 2012 (Length of Stay / Netherlands; Specialist Surgical Force density / Sweden)
 (b) Latest available data is from 2009 (Number of Hospital Beds / Netherlands)
 (c) Latest available data is from 2011 (Nursing and Midwifery personnel density / France)
 (d) Latest available data is from 2007 (Nursing and Midwifery personnel density / Netherlands)
 (e) Latest available data is from 2013 (Length of Stay / France; Specialist Surgical Workforce / Germany and Netherlands; Daily Smokers / Germany; Alcohol consumption / Germany)
 (f) Latest available data is from 2010 (Alcohol consumption / Spain)