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Regional development
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The Game Lasts Longer than 90 Minutes – Empirical Analysis of the Regional Effects of a Premier League Soccer Club

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Introduction

- **Empirical Studies on regional effects of soccer clubs normally focus on demand-side effects, i.e. regional multiplier analysis.**
- **But there seems to be “something more” – beyond regional multipliers¹**
- **The presentation does not only deal with “traditional demand side analysis” ...**
- **... but also tries to find out, if there is something beyond.**

Theoretical Considerations

Literature distinguishes demand and supply side effects:

- **Demand side effects:**
 - **Direct effect – regional employment, income and gross value added**
 - **Indirect effects – Investment, demand for intermediate goods and expenses of fans – regional employment, income and value added**
 - **Induced effects via regional income cycle – regional employment, income and value added**
- **Supply side effects:**
 - **Improvement of awareness level and image**
 - **Regional location factor**
 - **Regional „psychological income“**
 - **Nucleus of a regional communication and cooperation network**

Research Objectives, Design and Methods

Research Objective

- To empirically analyse all kind of effects of soccer clubs for their surrounding region as complete as possible

Research Design: Case study for ...

- ... Borussia Mönchengladbach
- Who knows the city? Who knows the soccer club?



Research Objectives, Design and Methods

Research design for demand side effects

- Regional multiplier analysis
- Iterative procedure using information from national input-output-tables
- Calculation of regional multipliers = overall effect / direct effect
- Overall effect = direct + indirect + induced effect

Research Design for supply side effects

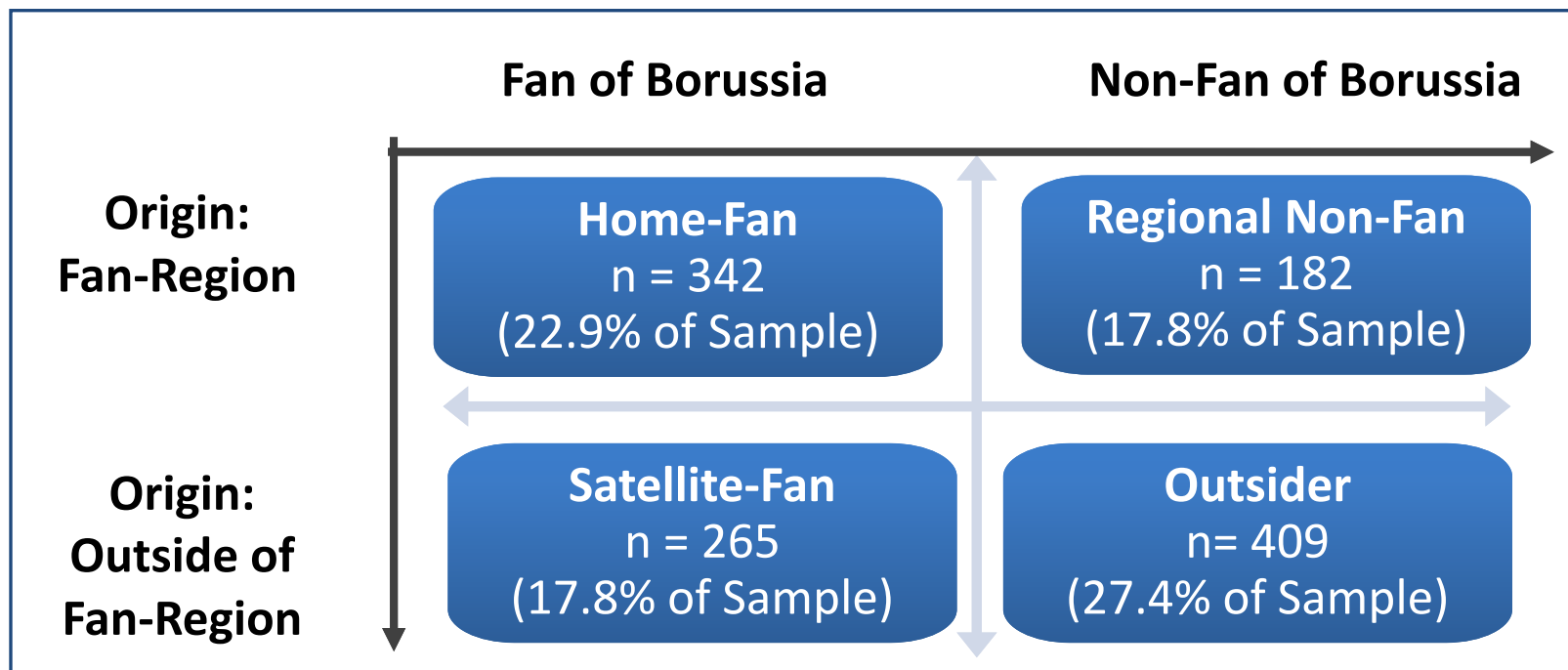
- Analysis of “Advertising Value Equivalency (AVE)” based on media coverage analysis
- Basic network analysis
- Three surveys conducted in autumn 2013:

**Audience of soccer matches (n = 913), Face-to-face pedestrian (n = 579) ,
Family-and-friends online (n = 265)**

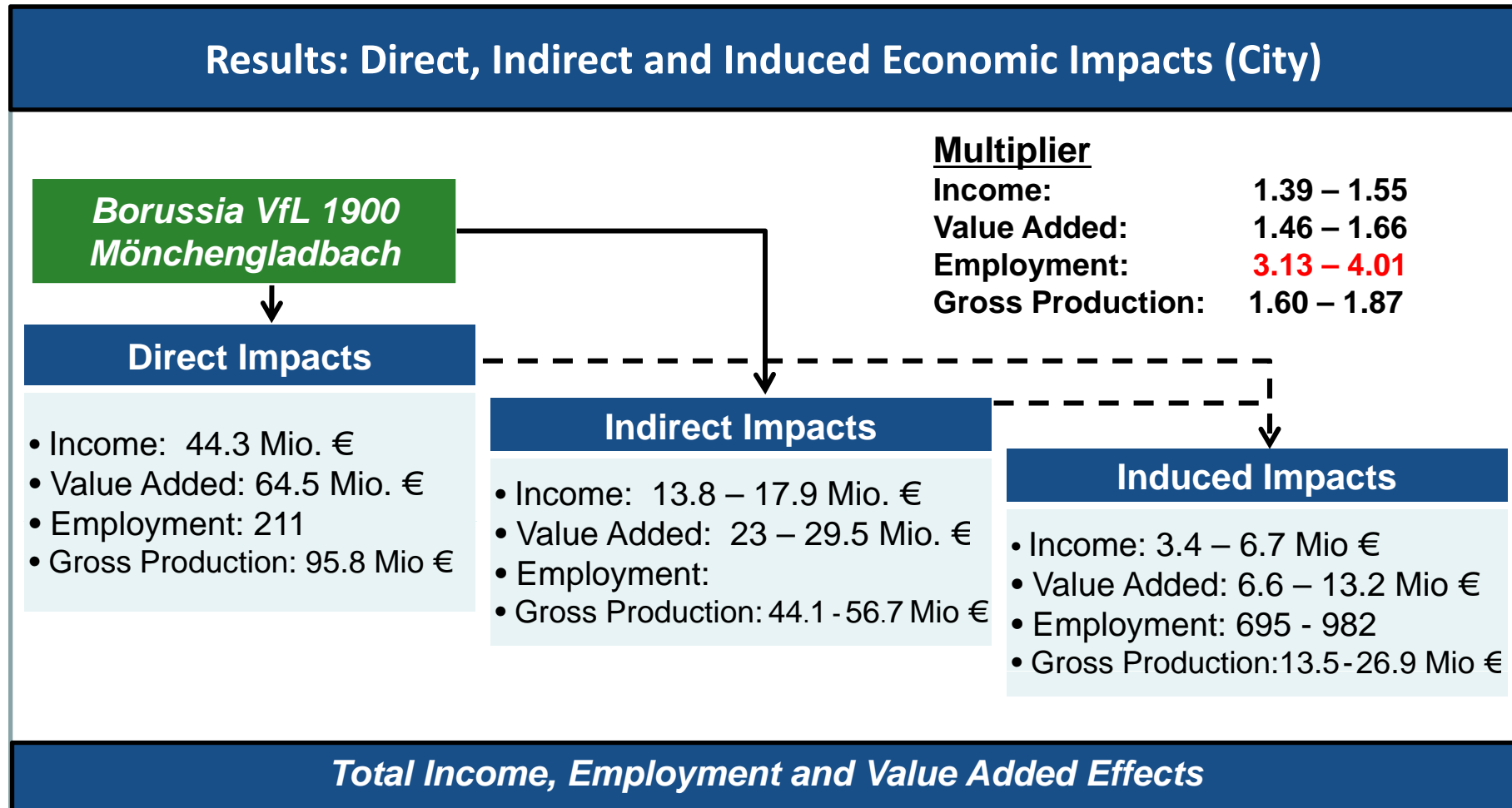
Research Objectives, Design and Methods

Differing survey population used for differing analysis aspects:

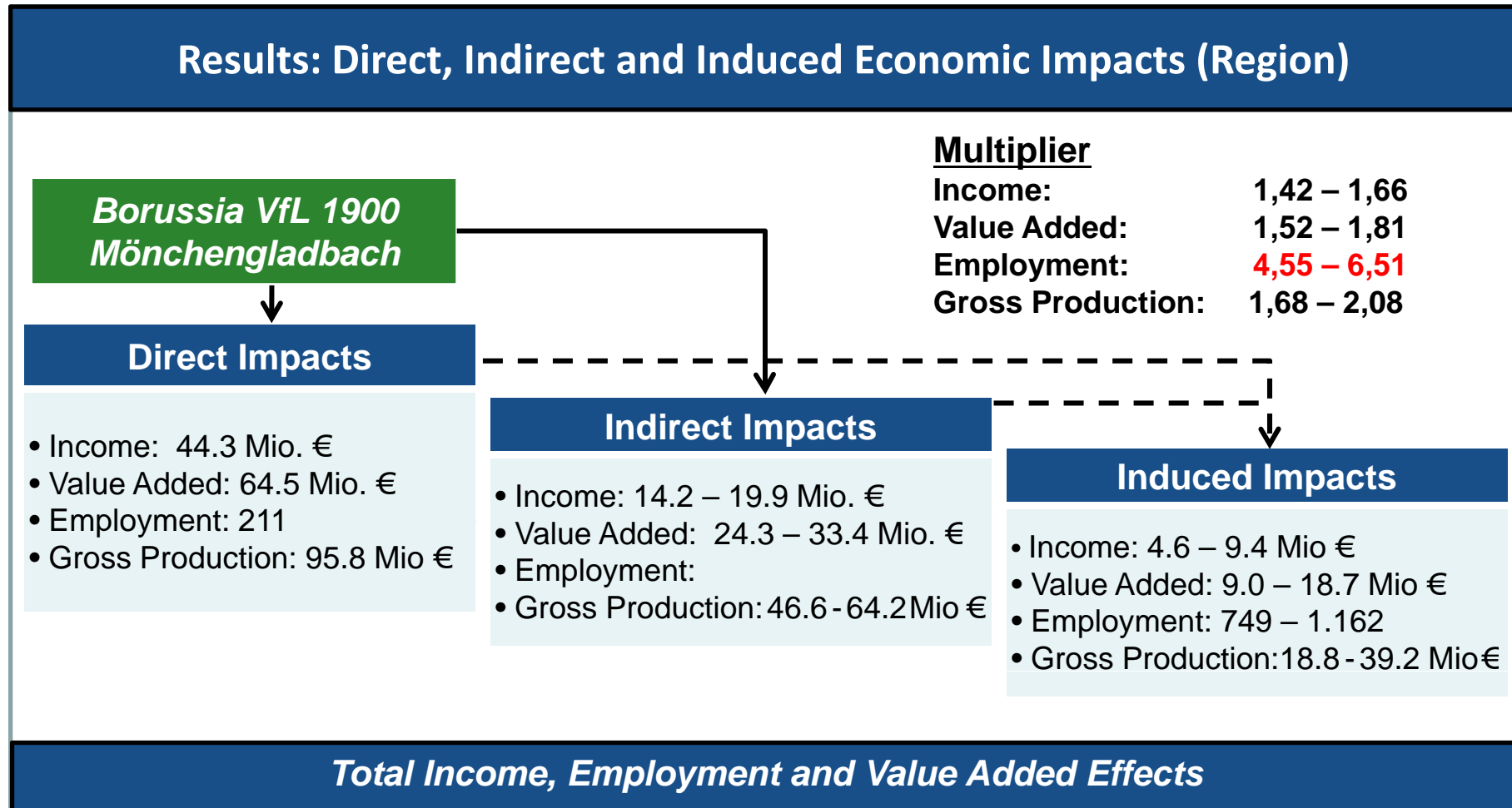
- Total data set (seldom)
- Reduced data set without audience of matches (in some cases)
- Clustered data set (in most cases)



Empirical Results – Demand Side Effects in the City

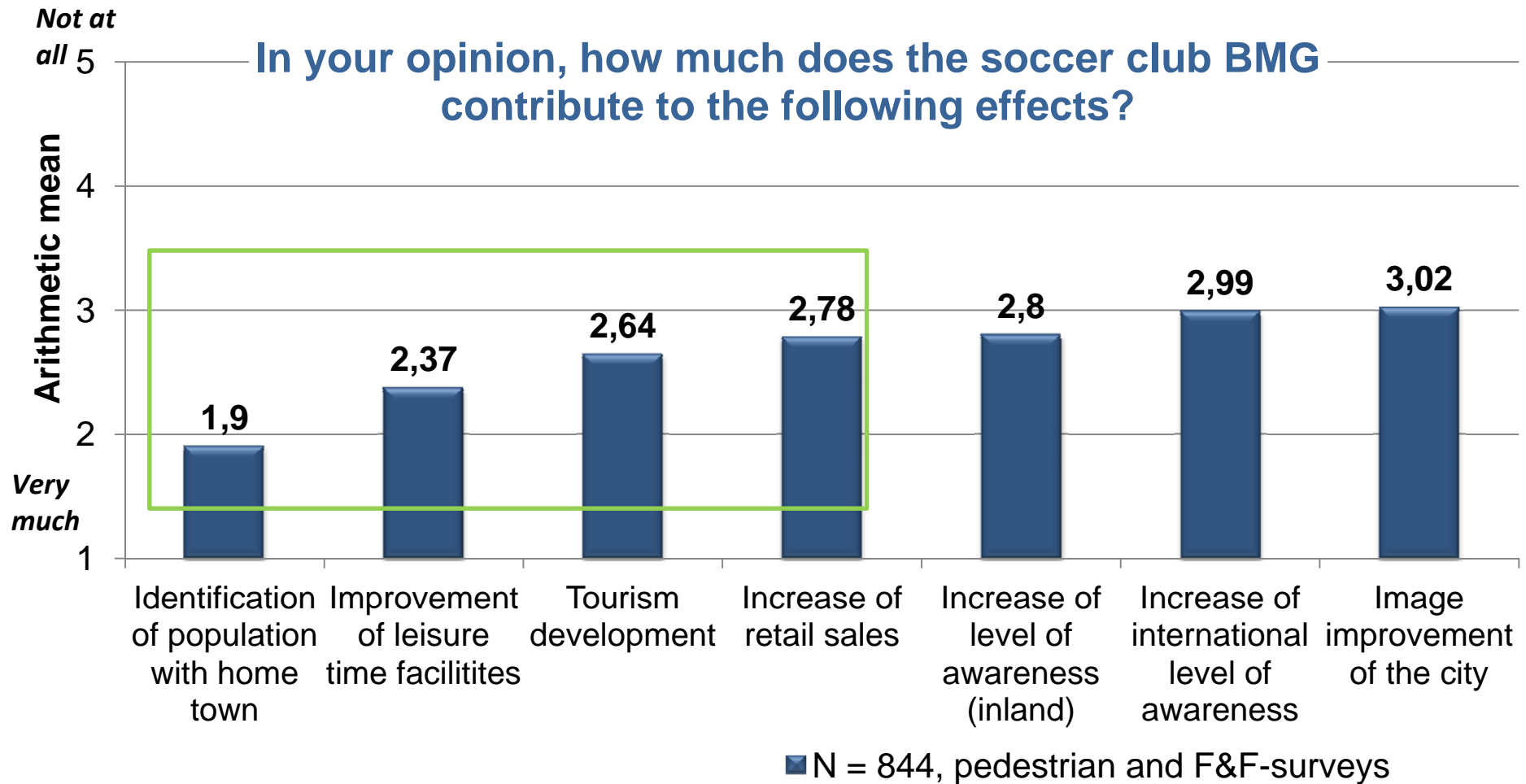


Empirical Results – Demand Side Effects in the Region



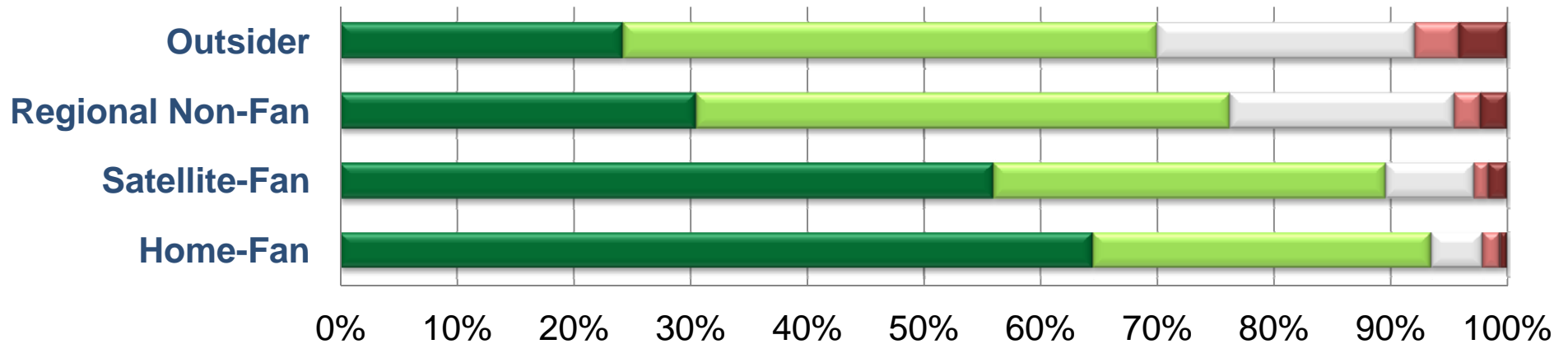
Empirical Results – Supply Side Effects

Overview of regional location effects



Empirical Results – Supply Side Effects

Increase of City's Level of Awareness - Inland

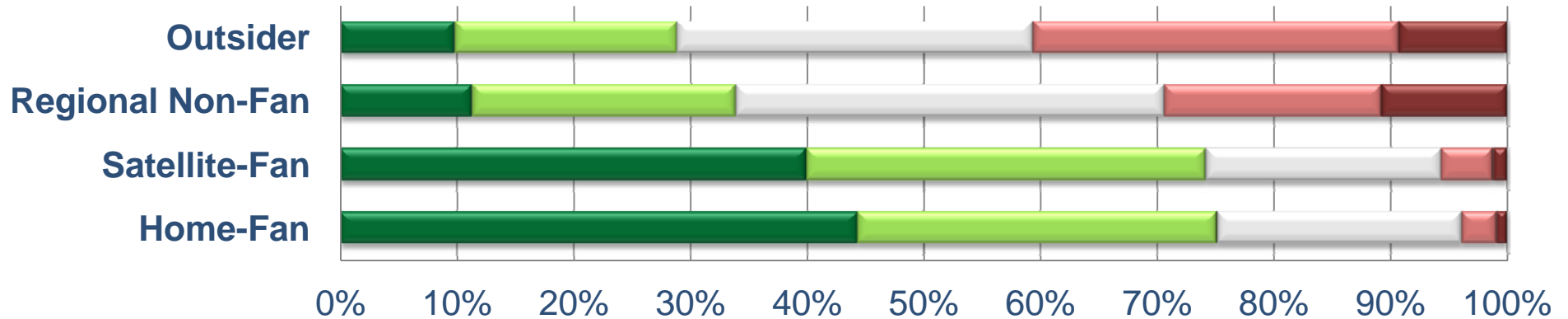


	Home-Fan	Satellite-Fan	Regional Non-Fan	Outsider
Very strong	64,5%	56,0%	30,5%	24,3%
Strong	29,0%	33,6%	45,8%	45,8%
Medium	4,4%	7,6%	19,2%	22,1%
Low	1,5%	1,2%	2,3%	3,8%
No Effects	,6%	1,6%	2,3%	4,1%

- 93.5% of the home-fans think that the club increases national awareness of the city
- Even 70.1% of the outsiders believe so

Empirical Results – Supply Side Effects

Increase of City's International Level of Awareness



	Home-Fan	Satellite-Fan	Regional Non-Fan	Outsider
■ Very strong	44,3%	39,9%	11,3%	9,8%
■ Strong	30,8%	34,3%	22,6%	19,1%
■ Medium	21,0%	20,2%	36,7%	30,5%
■ Low	3,0%	4,4%	18,6%	31,3%
■ No Effects	,9%	1,2%	10,7%	9,3%

- About 75% of the two fan groups believe that Borussia increases the city's international awareness
- Nearly 30% of the outsiders believe in these effects, too

Empirical Results – Supply Side Effects

Value of Borussia's Media Coverage for the City

What would the city Mönchengladbach have to pay for the TV media coverage it received for free by the TV presence of the soccer club BMG?

Advertising Value Equivalency (AVE)

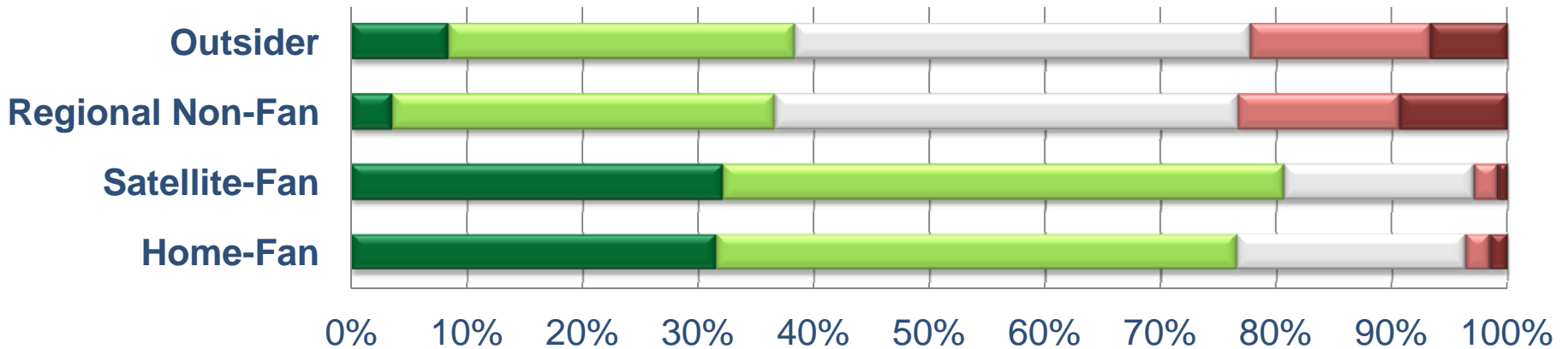
- **Calculation: Media exposure** (broadcast time * number of viewers) **divided by 1.000 * TCP** (thousandcontactprice, price per 1.000 page impressions)
- As the city cannot influence the broadcasting content, we calculate a low estimation of TCP (5% of average TCP in last three years) and a high estimation (10% of average TCP in last three years)

Season 2011/12: 18.062 Mio media exposure / 1,000 * 0.69TCP (l.e.) accordingly 1.39 (h.e.)
AVE = 12.46 Mio. €(low estimation) and accordingly 25,05 Mio. €(high estimation)

Season 2012/13: 14,087 Mio media exposure / 1,000 * 0.69TCP (l.e.) accordingly 1.39 (h.e.)
AVE = 10,34 Mio. €(low estimation) and accordingly 20,79 Mio. €(high estimation)

Empirical Results – Supply Side Effects

Image Improvement



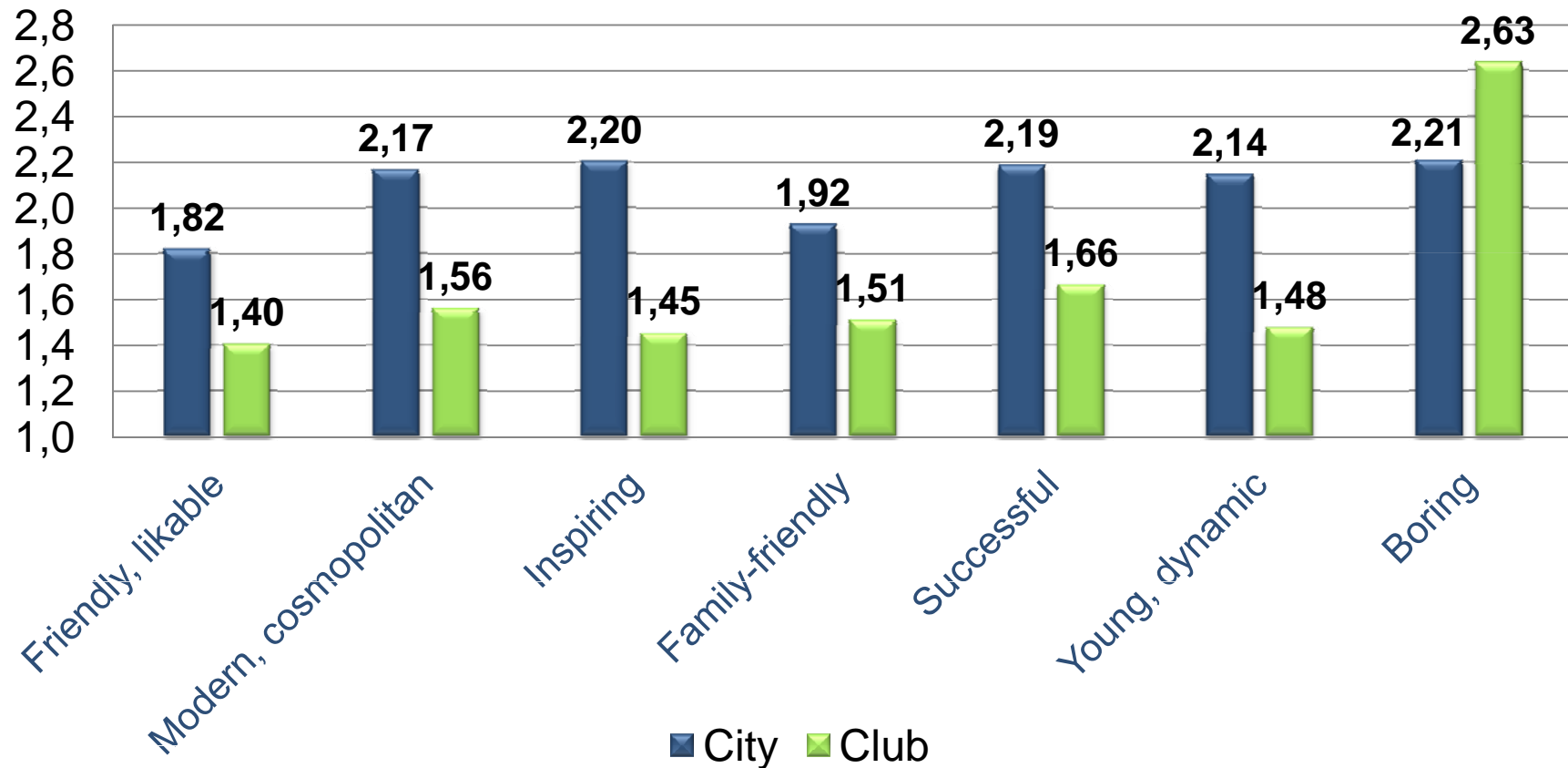
	Home-Fan	Satellite-Fan	Regional Non-Fan	Outsider
Very strong	31,5%	32,1%	3,5%	8,4%
Strong	45,0%	48,6%	33,1%	30,0%
Middle	19,8%	16,5%	40,1%	39,5%
low	2,1%	2,1%	14,0%	15,6%
not at all	1,5%	,8%	9,3%	6,6%

- About 30% of the two fan groups believe that Borussia MG improves the city's image
- Only 8% of the outsiders believe in these effects

Empirical Results – Supply Side Effects

Attributes of City and Club

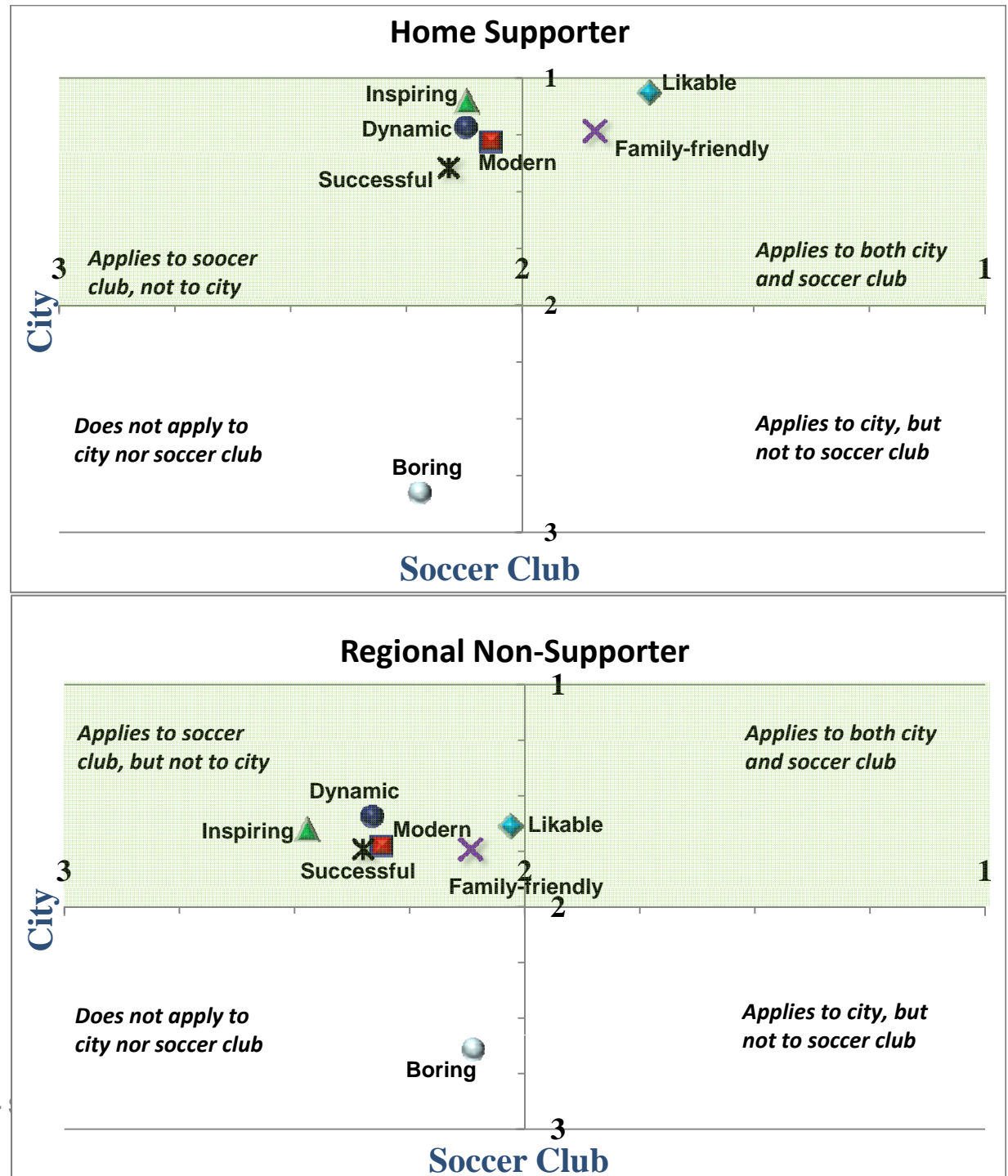
Survey Participants rated image-forming attributes for the city of Mönchengladbach and the soccer club BMG



Empirical Results

Attributes of City & Club – Ratings by Fan Groups

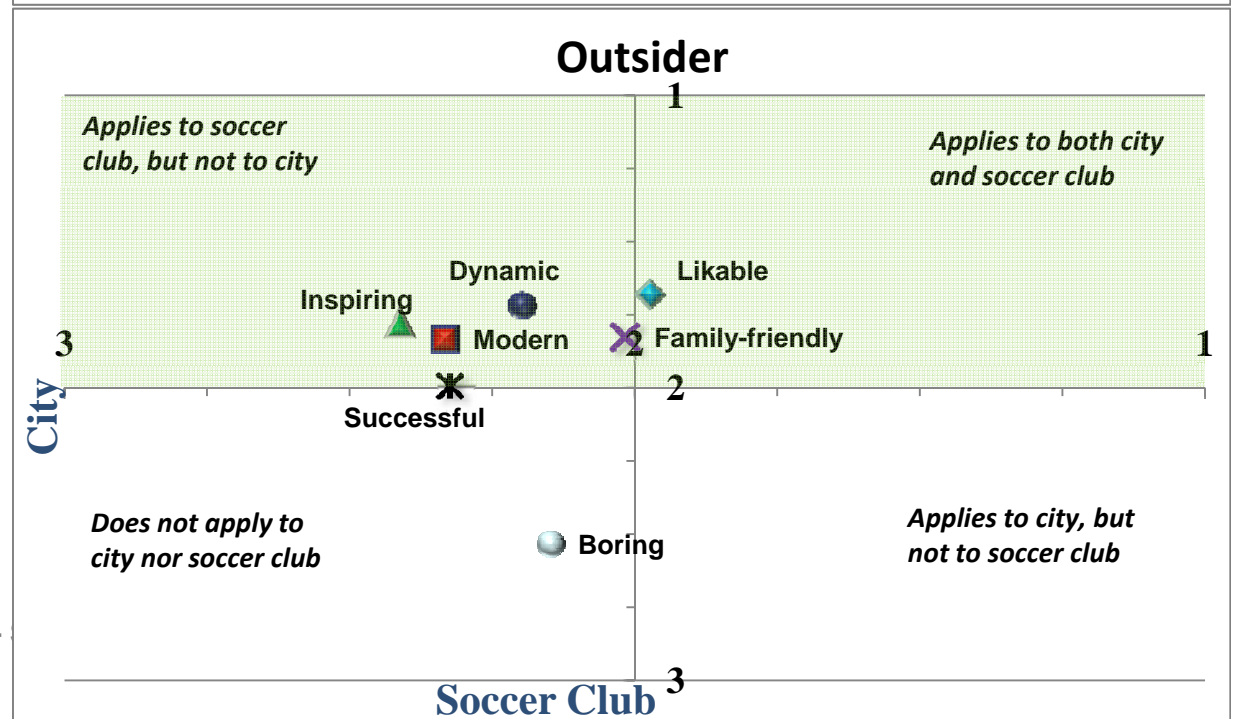
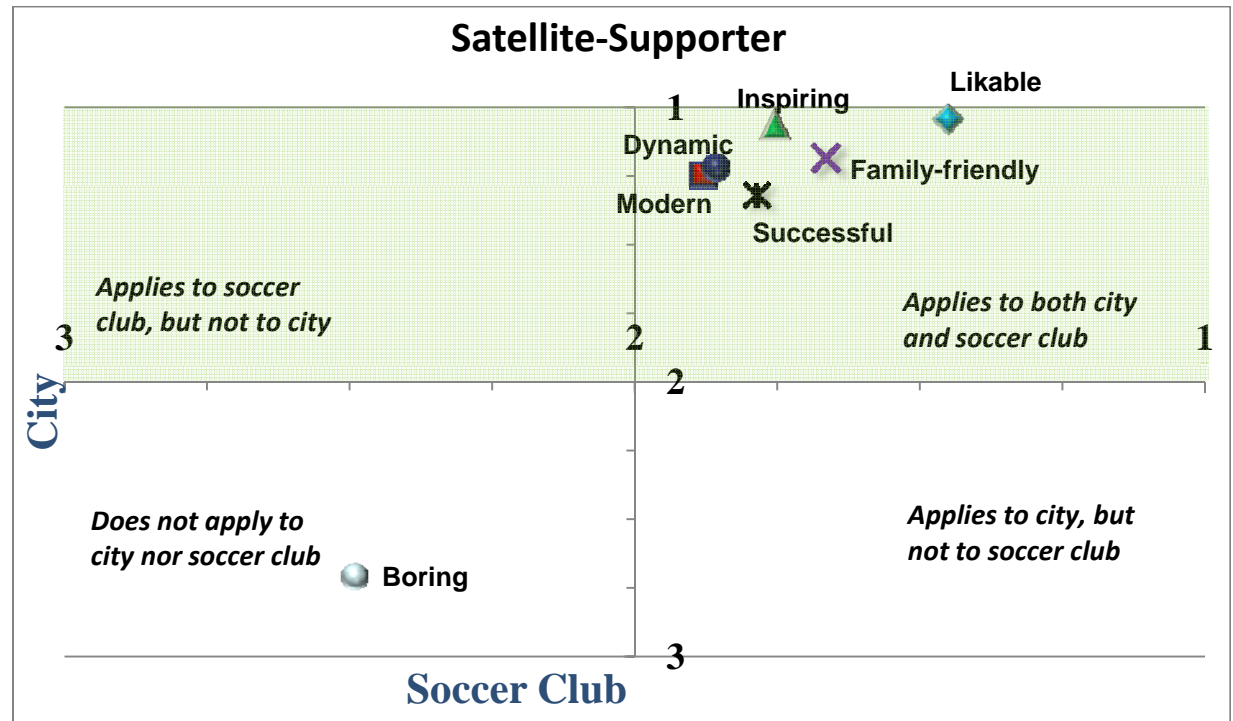
- **Scale:**
 - 1 – Applies
 - 2 – Partially applies
 - 3 – Does not apply
- **Expectation in case of transfer: Fans evaluate soccer club AND city more positive than non-fans**
 - this can be observed
 - points tend to move to the upper right corner of the diagram, meaning that home-fans give better ratings to both – club and city



Empirical Results

Attributes of City & Club – Ratings by Fan Groups

- **Scale:**
 1 – Applies
 2 – Partially applies
 3 – Does not apply
- The same can be observed comparing satellite fans and outsiders.
- Points tend to move to the upper right corner of the diagram, meaning that satellite-fans give better ratings to both – club and city



Empirical Results – Supply Side Effects

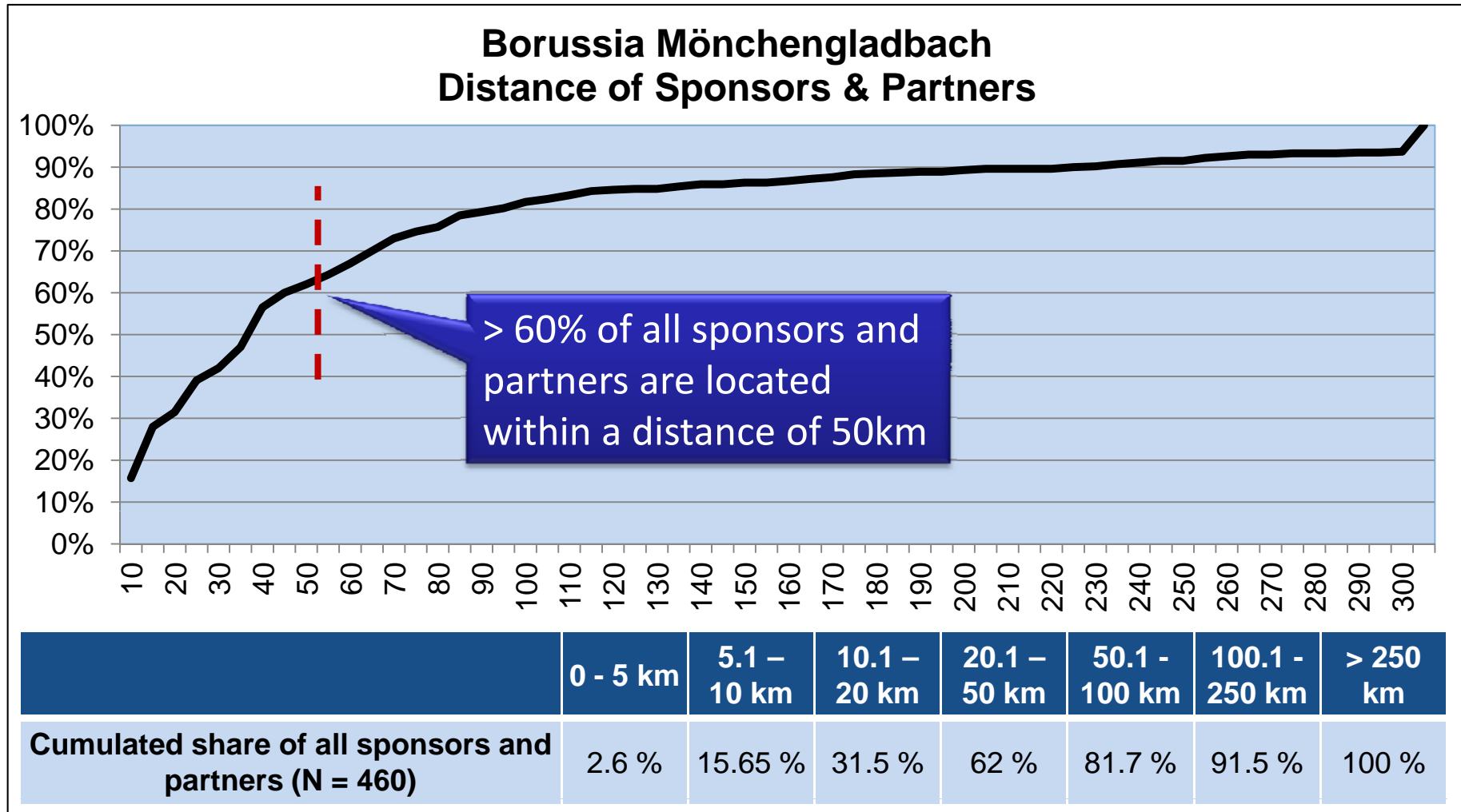
Regional „psychological income“

- Psychological benefit of population due to existence of soccer club
- Self-assurance, self-esteem, pride, patriotism, identification

Survey: „Imagine, BMG would face bankruptcy. How much would you be willing to donate for the soccer club in this year, to continually avoid this situation?“	
Fan-Cluster	Willingness to donate, Ø
Home-Fan	110.58€
Satellite-Fan	97.51€
Regional Non-Fan	7.04€
Outsider	5.22€
Total Sample, Ø	53.60€
Pedestrian and F&F-surveys, participants that live in Mönchengladbach	42.95€
Calculation of <u>total willingness to donate</u> in Mönchengladbach per year (Population in Mönchengladbach older than 15 years: 222,518) ¹	9,557,148 €

Empirical Results

Nucleus of regional communication and cooperation network



Empirical Results; Effects on tourism industry

Month	Opponent	Travel distance to opponent's home city	Travel distance category	Viewers in stadium	Overnight stays for soccer games; calculation based on own survey results	For comparison: number of overnight stays in hotels in Mönchengladbach
Aug	Hoffenheim	382 km	2	49,645	3574	20,739
Sep	Nürnberg	488 km	3	51,791	4811	22,218
	HSV	429 km	3	46,028	4276	
Oct	Frankfurt	261 km	2	50,490	3635	22,368
Nov	Freiburg	480 km	3	47,373	4400	21,078
	Stuttgart	413 km	3	51,922	4823	
	Wolfsburg	414 km	3	39,363	3656	
Dec	Mainz	231 km	2	46,483	3346	13,439
Jan	Düsseldorf	38,2 km	1	49,109	3236	15,496
Feb	Leverkusen	74.9 km	1	45,802	3018	14,723
	Dortmund	101 km	1	53,588	3531	
Mar	Bremen	324 km	2	53,626	3861	20,240
	Hannover	345 km	2	45,976	3310	
Apr	Fürth	463 km	3	49,981	4643	19,247
	Augsburg	570 km	3	49,560	4604	
May	Schalke	92.9 km	1	53,782	3544	20,467
	Bayern	630 km	3	53,774	4995	
Jun/Jul	No matches					42356
Total					67.263	232.371

Summary

Main Results:

→ Demand side effects

- Multiplier effects comparable to other branches, exception: very high employment multiplier

→ Supply side effects

- Borussia Mönchengladbach increases the city's national and international level of awareness
- The club improves the city's image
- Psychological income
- Enhances regional communication and cooperation network
- Supports tourism industry
- Analysis suggests a transfer of image from the club to the city



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[Thank you for your attention!](#)

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Empirical Results – Demand Side Effects in the City

Effects on Income, Value Added, Employment and Gross Production within the city MG

(1) High Estimation

Total Effects	Income	Value Added	Employment	Gross Production
Direct Effect	44,314,000€	64,467,057€	211	95,759,657€
Indirect Effect (Investment, expenditure)	1,883,002€	3,863,140€		7,087,000€
Indirect Effect (Expenses of fans and visitors)	15,980,518€	25,622,348€		49,588,342€
Induced Effects	6,720,651€	13,246,288€	982	26,933,734€
Total Effect	68,898,171€	107,198,833€	1.193	179,368,733€
Multiplicator	1.55	1.66	4.01	1.87

(2) Low Estimation

Total Effects	Income	Value Added	Employment	Gross Production
Direct Effect	44,314,000€	64,467,057€	211	95,759,657€
Indirect Effect (Investment, expenditure)	1,883,002€	3,863,140€		7,087,000€
Indirect Effect (Expenses of fans and visitors)	11,929,163€	19,126,612€		37,016,786€
Induced Effects	3,386,072€	6,644,527€	695	13,462,157€
Total Effect	61,512,237€	94,101,336€	906	153,325,600€
Multiplicator	1.39	1.46	3.13	1.60