Mercer

welcome to brighter

Łódź vs other European destinations. Investment location attractiveness analysis

Proposed approach

13/02/2024

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Proposed methodology and project aproach

The site selection/talent intelligence framework

Business Requirements

Identify the impact on current processes and operations, human capital and external partners

Consider ALL stakeholders' priorities

Develop a concise list of criteria that new location must meet

Ensure criteria can be measured, supported by facts and latest available data

Get granular – consider „city" not „country" level data

Site selection decisions need to support **current and future people and business strategies**.

A process of co-creation will be adopted throughout all of the project phases. We recommend that Lufthansa Technik form an internal project team that is comprised of senior stakeholders that represent 'different' parts of the business.

Labor Market

- Labor availability
- Labor cost
- Labor quality

Business climate

- Economic development
- Political and regulatory environment
- Incentives

Community

- Infrastructure
- Risk profile
- Quality of living

Typical Site Selection criteria and weighting applied by investors

Average for Site Selection projects in years 2022-2023

	Average
Labor Availability	34.4%
Labor cost	26.6%
Talent Quality	10.6%
Labor Law	3.4%
Infrastructure	3.5%
Political Stability	3.3%
Investment incentives	3.2%
Employer brand perception	2.1%
Travel Convenience	3.3%
Community and Culture	3.1%
Quality of Living	1.9%
Cost of Living	0.7%

The division of sub-criteria into categories is based on the needs and wishes of each Client – some of the criteria might overlap.

An example summary of a Site Selection report featuring Łódź

Łódź is a strong contender, but falls short in labor supply

		Poland							Spain		Slovakia	Romania	Czech Republic	Hungary
	weight	Gdańsk	Katowice	Kraków	Łódź	Poznań	Warsaw	Wrocław	Madrid	Valencia	Bratislava	Bucharest	Prague	Budapest
Labour Availability	30%	26.99	32.47	31.95	18.58	25.10	49.93	27.68	95.21	33.17	22.80	37.41	40.76	49.48
Labour Cost	50%	80.13	84.10	80.30	85.92	83.73	78.61	81.76	54.04	55.46	68.51	86.51	59.75	89.88
Labour Demand	20%	51.41	55.23	53.54	61.59	56.82	50.85	52.58	67.36	61.41	62.99	55.61	77.01	70.03
	100%	**58.44**	**62.84**	**60.44**	**60.85**	**60.76**	**64.46**	**59.70**	**69.05**	**49.96**	**53.69**	**65.60**	**57.51**	**73.79**

Strengths, Weakneses, Opportunities and Threats

Observations for the City of Łódź based on past site-selection projects

S

- Location & Infrastructure
- Skilled Workforce
- Cost Advantage
- Infrastructure
- Government Support

W

- Limited Market Size
- Strong Competition
- Scores Lower on Quality of Life than regional competitors

O

- Rapid Economic Growth
- Strong Business Associations

T

- Economic Uncertainty
- Talent Drain
- Technological Disruptions

European cities competing with Łódź in Site Selection projects led by Mercer within last 24 months

Information Technology	Shared Services	Manufacturing
Katowice (Poland)	Kraków (Poland)	Wrocław (Poland)
Timisoara (Romania)	Timisoara (Romania)	Nitra (Slovakia)
Brno (Czech Republic)	Brno (Czech Republic)	Brno (Czech Republic)
Budapest (Hungary)	Budapest (Hungary)	Debrecen (Hungary)
Cluj Napoca (Romania)	Ostrava (Czech Republic)	Plovdiv (Bulgaria)
Lisbon (Portugal)	Porto (Portugal)	Usti n Laba (Czech Republic)
Madrid (Spain)	Lisbon (Portugal)	Kaunas (Lithuania)
Belgrade (Serbia)	Belgrade (Serbia)	
Bratislava (Slovakia)	Kosice (Slovakia)	

Typical comparison dashboard of the attractiveness of analysed locations based on a suite of measures co-designed with the business

		Target city	Loc 1	Loc 2	Loc 3	Loc 4	Weights
Labor availability and quality	Score	57	68	54	69	79	17%
	Rank	4	3	5	2	1	
Labor costs	Score	51	56	98	57	56	12%
	Rank	4	3	1	2	3	
Quality and cost of living	Score	74	62	94	59	67	13%
	Rank	2	4	1	5	3	
Travel convenience	Score	44	84	73	70	43	4%
	Rank	4	1	2	3	5	
Labor law	Score	70	89	69	83	79	7%
	Rank	4	1	5	2	3	
Personal tax	Score	50	71	55	98	48	7%
	Rank	4	2	3	1	5	
Company tax	Score	32	52	28	91	39	7%
	Rank	4	2	5	1	3	
Country stability & culture	Score	93	85	51	88	83	12%
	Rank	1	3	5	2	4	
Languages	Score	75	59	50	61	66	5%
	Rank	1	4	5	3	2	
Incentives	Score	25	17	50	42	42	4%
	Rank	3	4	1	2	2	
Business continuity	Score	72	74	58	83	48	11%
	Rank	3	2	4	1	5	
Total Score	**Score**	**62**	**67**	**64**	**73**	**63**	
	Rank	**5**	**2**	**3**	**1**	**4**	

H	Most favorable - score at or above 3rd quartile values of score for considered locations
M	Moderate favorability - score between 1st and 3rd quartile of scores for considered locations
L	Least favorable - score at or below 1st quartile of scores for considered locations

The higher score - the better; max: 100

Sample measure to Labour availability criteria

			Source	Portugal Lisbon	Spain Barcelona	Spain Madrid	USA North Jersey*	Weights
Demographics	**Population Size**		*CSOs: INE PT, INE ES, US Census Bureau, latest data*	2,899,670	5,702,260	6,726,640	4,451,000	50%
	Average annual growth of population in period 2013-2022 (%)		*World Population Review*	0.50%	1.02%	1.12%	0.70%	50%
				44	**88**	**100**	**65**	**100%**
Labour Force Key Indicators	**Unemployment Rate** (%)		*Countries' statistical offices: INE PT, INE ES, US BLS, latest data*	6.60%	8.35%	10.53%	4.68%	30%
	Economically Active Population			1,461,000	2,997,900	3,672,700	2,270,100	70%
				47	**81**	**100**	**57**	**100%**
Labour Pool Estimation	**Marketing Analyst**		*Mercer estimation based on data from countries' statistical offices, International Labor Organization, and professional networking websites*	3,750	4,100	5,970	5,610	20%
	Business Development Manager			970	1,840	3,430	1,560	20%
	Business Development Operations			2,310	4,010	7,350	6,190	10%
	Business Analyst			1,240	1,530	3,280	1,770	10%
	Site Manager			1,310	2,190	3,690	6,700	5%
	HR Operations/Recruiter			9,250	11,160	20,540	16,040	5%
	IT Specialist			19,190	16,870	29,290	29,110	10%
	Online Content Manager			6,960	14,000	20,130	17,600	10%
	Product Operations			7,700	15,400	23,400	27,800	10%
				41	**57**	**96**	**79**	**100%**
Turnover (country-level)	**Professional Non-Sales**	**Voluntary**	*Comptryx 2023, average turnover, non-sales functions*	8.6%	8.8%	8.9%	12.8%	25%
		Total		10.1%	11.6%	11.0%	17.2%	25%
	Management	**Voluntary**		6.3%	6.9%	3.9%	13.6%	25%
		Total		11.3%	9.1%	5.7%	17.8%	25%
				59	**59**	**48**	**100**	**100%**

We will model number of potential candidates per profile in scope

POTENTIAL NUMBER OF HIRES IN LOCATION 1
JUNIOR SOFTWARE DEVELOPER POSITION

		Labor Pool	Available Candidates	Interested in Job	Hired, Per Year
IT MARKET	Junior Software Developers in Location 1	1,698 Number of software developers in the city	26 - 103 IT developers willing to change job with required skills level (1.5%-6.1%)	4 - 28 Available candidates interested in work in Company ABC (14%-28%)	0 - 13 Applicants passing tests and certification (14%-45%)
TERTIARY EDUCATION STUDENTS	IT Students	1,312 Number of IT students	92 - 413 IT students willing to work with required skills level (7%-31.5%)	13 - 114 Available candidates interested in work in Company ABC (14%-28%)	2 - 31 Applicants passing tests and certification (14%-27%)
	Students of Related Faculties (non-IT)	412 Number of non-IT students	7 - 32 Non-IT students willing to work with required skills level (1.8%-7.9%)	1 - 9 Available candidates interested in work in Company ABC (14%-28%)	0 - 2 Applicants passing tests and certification (14%-27%)
TERTIARY EDUCATION GRADUATES	IT Graduates	237 Number of IT graduates	237 - 237 IT graduates willing to work with required skills level (100%-100%)	33 - 65 Available candidates interested in work in Company ABC (14%-28%)	4 - 29 Applicants passing tests and certification (14%-45%)
	Graduates of Related Faculties (non-IT)	87 Number of non-IT graduates	15 - 20 Non-IT graduates willing to work with required skills level (17.5%-22.5%)	2 - 5 Available candidates interested in work in Company ABC (14%-28%)	0 - 2 Applicants passing tests and certification (14%-45%)
SECONDARY EDUCATION STUDENTS	IT Secondary Technical Schools' Graduates	278 Number of IT secondary technical schools' graduates	7 - 42 IT secondary technical schools' graduates willing to work with required skills level (2.5%-15%)	1 - 11 Available candidates interested in work in Company ABC (14%-28%)	0 - 5 Applicants passing tests and certification (14%-45%)
				Minimum \ Maximum Possible Hires, Per Year:	7 - 83
				Average Possible Hires, Per Year:	32

Labor supply in Spartanburg

Funnel analysis for Spartanburg County and Upstate South Carolina

What does this leave as the **available pool of qualified talent?**

What is the original **pool of labor available**?

How much of this labor supply is **willing to change their employer**?

How much of this labor supply will be **ruled out through the hiring process**?

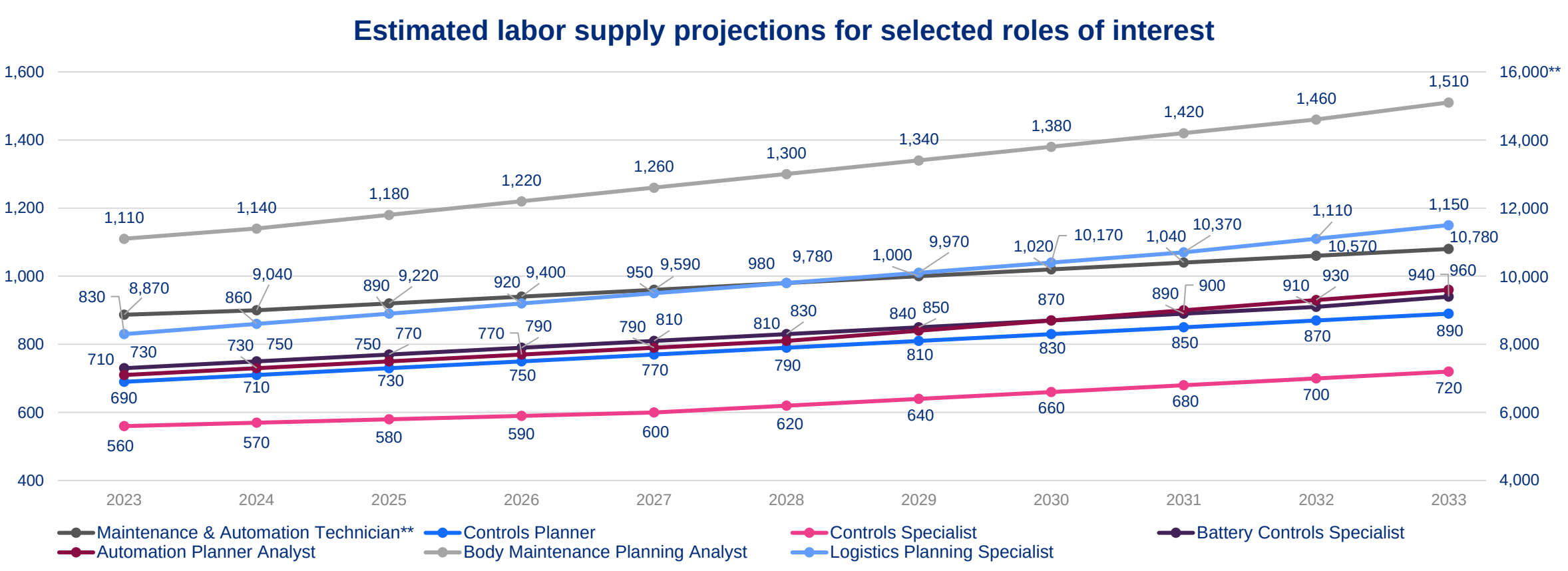
Role of interest	Labor pool		Talent willing to change employer		Available candidates		Hired	
			= Labor pool *x* **total turnover rate in manufacturing: 6.2%**		= Talent willing to change job *x* **attraction rate: 25%*** *x* **screening rate: 60%***		= Available candidates x **acceptance rate: 80%***	
	Spartanburg County	Upstate SC	Spartanburg County	Upstate SC	Spartanburg County	Upstate SC	Spartanburg County	Upstate SC
Maintenance & Automation Technician	2,090	5,460	130	339	19	51	16	41
Tooling Specialist	520	3,470	32	215	5	32	4	26
Controls Specialist	100	560	6	35	1	5	1	4
Battery Controls Specialist	130	730	8	45	1	7	1	5
Controls Planner	110	690	7	43	1	6	1	5
Automation Planner Analyst	120	710	7	44	1	7	1	5
Maintenance Planning Specialist	610	3,400	38	211	6	32	5	25
Body Maintenance Planning Analyst	230	1,110	14	69	2	10	2	8
Supply Chain Planning Specialist	770	3,360	48	208	7	31	6	25
Logistics Planning Specialist	100	830	6	51	1	8	1	6

The table shows how the labor supply values can estimate the **realistic number of hires in a given area**. The initial number of people in the talent pool is multiplied by the turnover rate in order to **simulate the employee movement within the local economy**. This number is then multiplied by the percentage of talent attracted to the company's brand, the probability that they will be screened and then accept the offer.

* In order to conduct the funnel analysis, Mercer made assumptions for key figures "attraction rate", "screening rate" and "acceptance rate" that are based on average values from the market. However, for more specific results, it is highly recommended to perform this analysis internally using BMW-specific numbers.

Labor supply projections* in analyzed location

Projection of labor supply growth until 2033



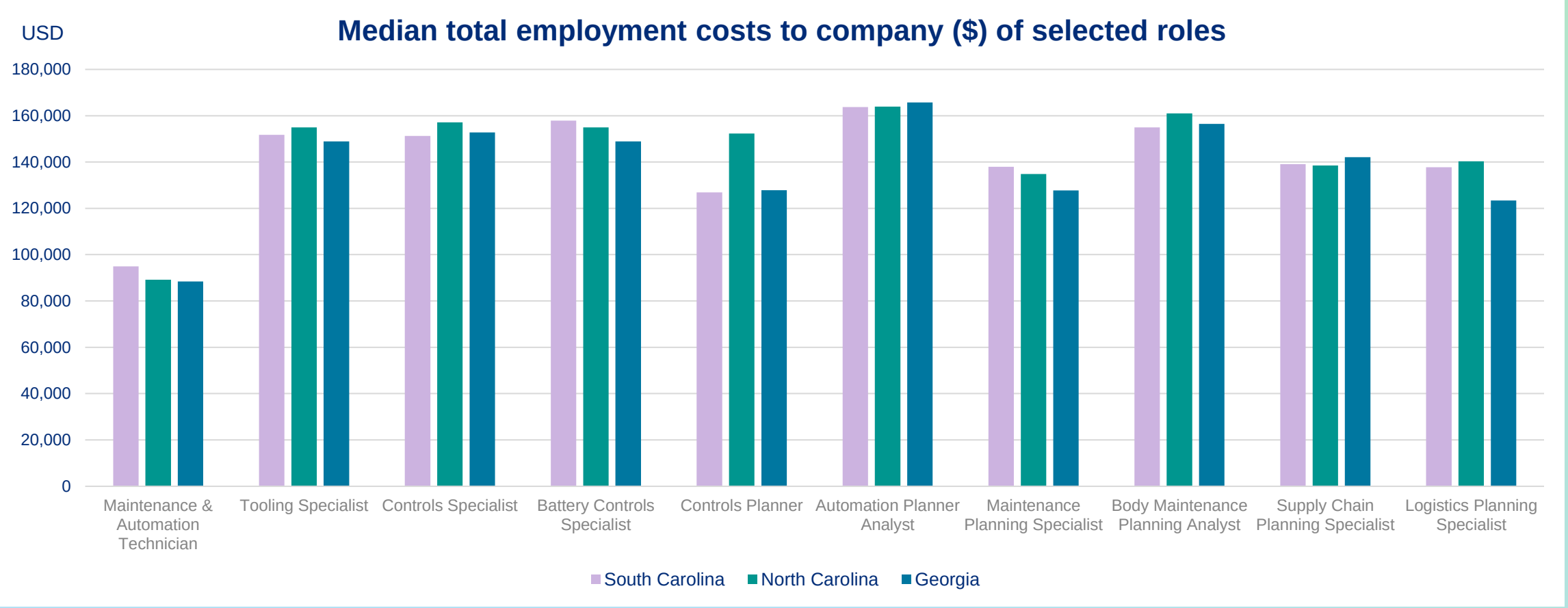
Source: Burning Glass Institute, 2024

* Population development, migration statistics, and expected growth of industry were taken into account in calculating the expected labor supply.
** The scale on the right applies to the role “Maintenance & Automation Technician” and simplifies the presentation of selected roles of interest in one chart.

Samples

Labor cost in relevant states

Total employment costs to company by role

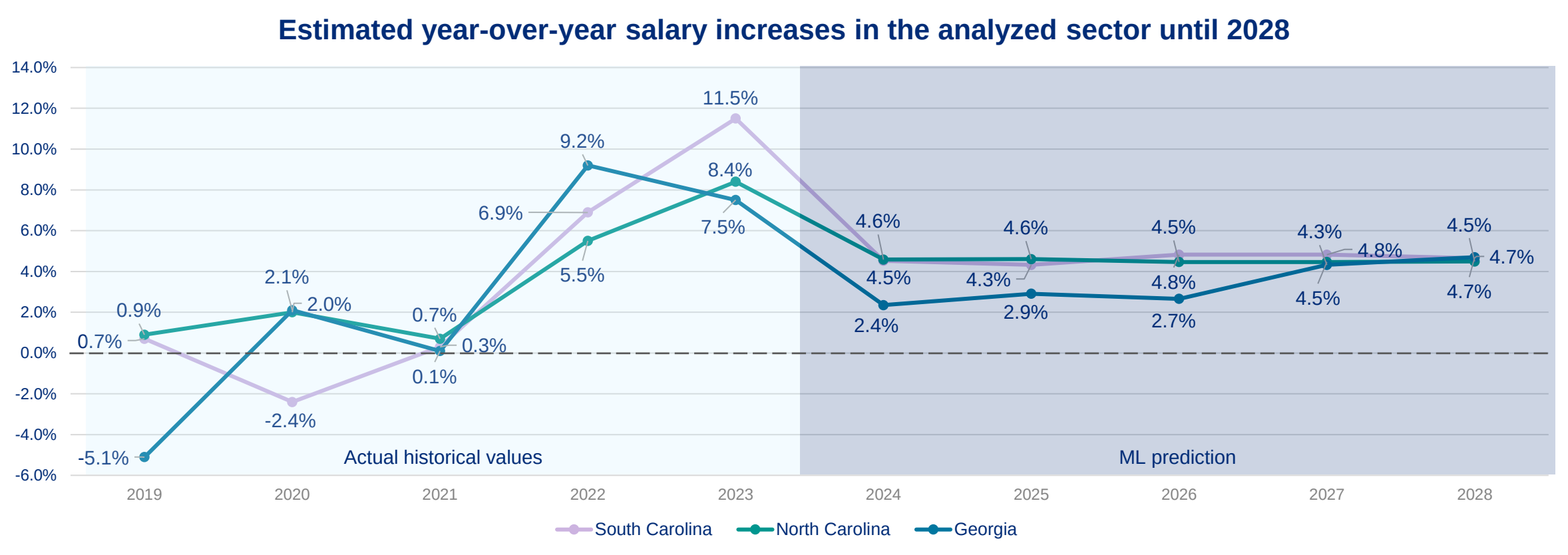


Source: Mercer's TRS, 2023

* Total employment costs include base and total cash salary, but with an annualized value of any benefits, allowances, and any statutory employer's contributions that are made on top of gross salary.

Estimated future salary growth in relevant locations

Estimated salary increases in the analyzed sector



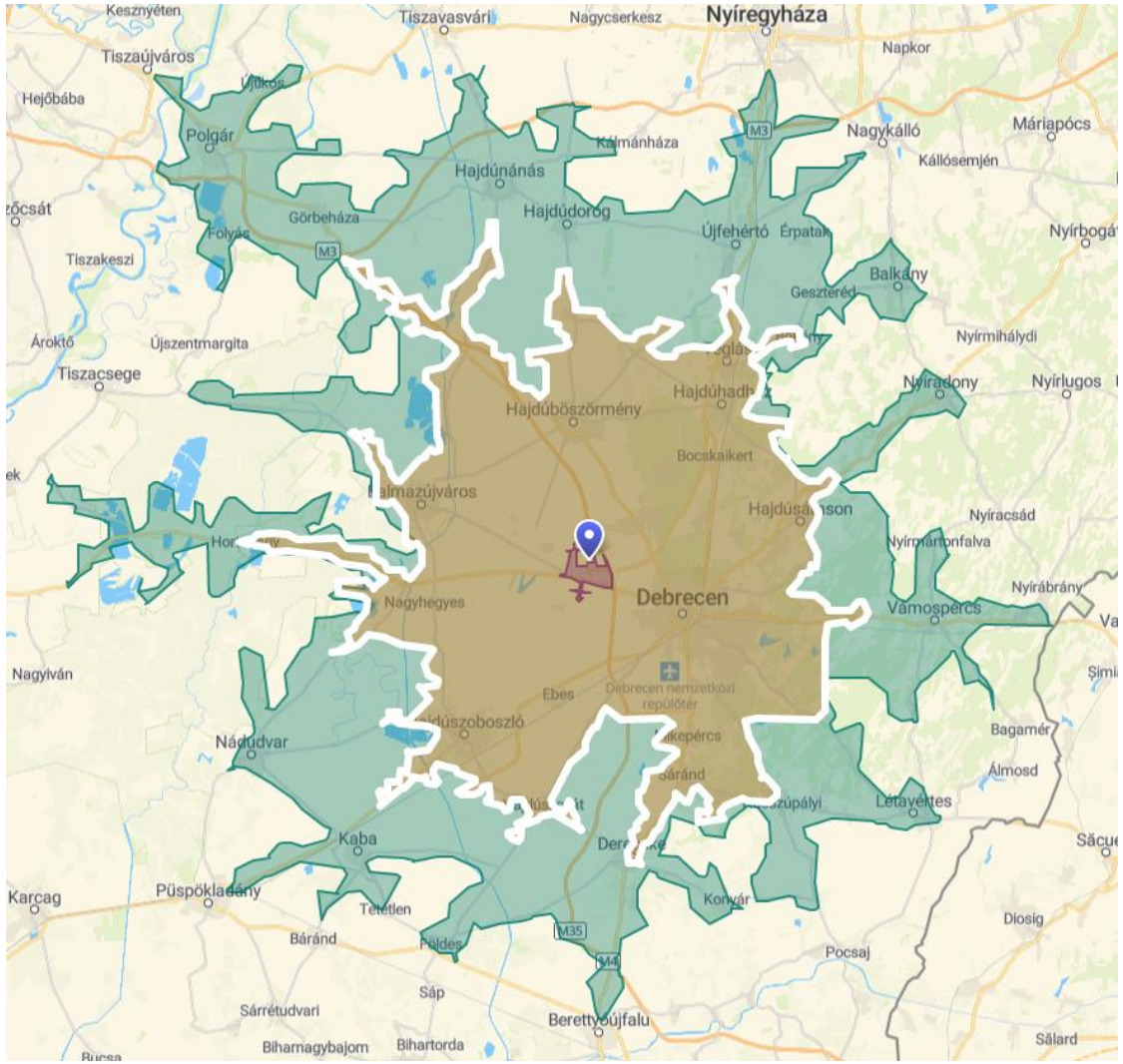
Source: 2019-2023 – actual historical values; 2024 onwards – the prediction of salary growth has been done using random forest model and macroeconomic data obtained from the IMF Economic Outlook Reports

Identification of the typical commuting patterns per location
- example below: Debrecen

The average commuting time in Hungary has been found to be around 29 minutes. In fact, Hungarians appear to be among the top 3 societies willing to commute the longest, along with the British and Latvians.

The diagram to the right shows a poligon with the areas from which the **mean drive time** to the client facilities **does not exceed 45 minutes** (**green plot**), **30 minutes** (**orange plot**) and areas within **reachable by foot within 45 minutes** (**red plot**).

The results suggest that the vast majority of the realistically available workforce should be considered to be within the Hajdú-Bihar komitat.



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A small selection of our recent Site Selection / Talent Intelligence clients

Discussion

- Scope of the analysis: Shared services, HiTech, manufacturing
- Key criteria
- Job families in scope
- Benchmarking cities
- Format of deliverables

Proposed project approach

4-6 weeks turnaround time

Project Activities

1 Kick-off workshop

- Project **governance structure** and project **milestones** to be agreed upon.
- Mercer and Łódź/ABSL project stakeholders to **confirm key project criteria**, covering both **business and human capital drivers** to be included within the location analysis.
- Identification of key skills/jobs to be included in the analysis
- Individual and joint **set of weights** to be allocated and brainstormed by Łódz/ABSL project team.
- Criteria ranking to be established (weights assigned).
- Creation (and validation) of **decision model/ data modeller**. All sources; methodologies; assumptions etc. to be validated with Łódź?ABSL prior to analysis commencing.

2 Analysis

Phase 1: Selection of cities for comparison

Quick- Scan: A light touch analysis across 30-40 cities based on labour availability and labour cost to define which 5-6 locations will enter the full comparison stage.

Output – a short list of cities that warrant further research in a deep dive.

Phase 2: Deep Dive: A comprehensive analysis/comparative study of the locations in scope . All locations to be analyzed based on all indicated criteria -human capital and business drivers confirmed during the kick-off workshop with the project team - e.g. investment incentives; expat attractiveness; access to talent etc.

3 Report; Findings

- Report in form of a Power Point presentation with **summary of analysis results and SWOT of Łódź regarding investment attractiveness potential**.
- **A comparator data model** allowing analysis of influence of individual weights assigned to each criteria for final recommendation, including detailed data description for all locations/sites.
- **A funnel analysis** (i.e. number of hires per year, per key skill,) for the positions included within the Deep Dive phase.

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registered in the District Court in Warsaw, XII Commercial Department of the National Court Register number 0000710757, Tax Identification Number 701-079-46-72, REGON 369081627, the share capital of PLN 34 700 000,00.

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