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Rialtas  
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Irish Government Economic and Evaluation Service

# Value-added and Productivity in the Business Economy

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This is a work-in-progress and all results are preliminary only.

# Introduction



- Motivation and Objective
- Data Sources
- Defining the 'Foreign' sector
- **Preliminary** results
- Recent changes to Industrial Policy
- Summary and Next Steps



# Motivation and Objective



## Motivation:

- *Productivity measures the value of output produced in the economy for a given amount of work. Higher productivity means higher wages and better living standards. It can also mean more money available to invest in public services*
- *There is a structural distinction between the ‘foreign’ and domestic’ sectors which is particularly prevalent in Ireland*
- *Understanding this structural distinction is critical to understanding productivity developments in Ireland – specifically, we are interested in understanding the role of State enterprise agency (SEA) client companies in these developments*

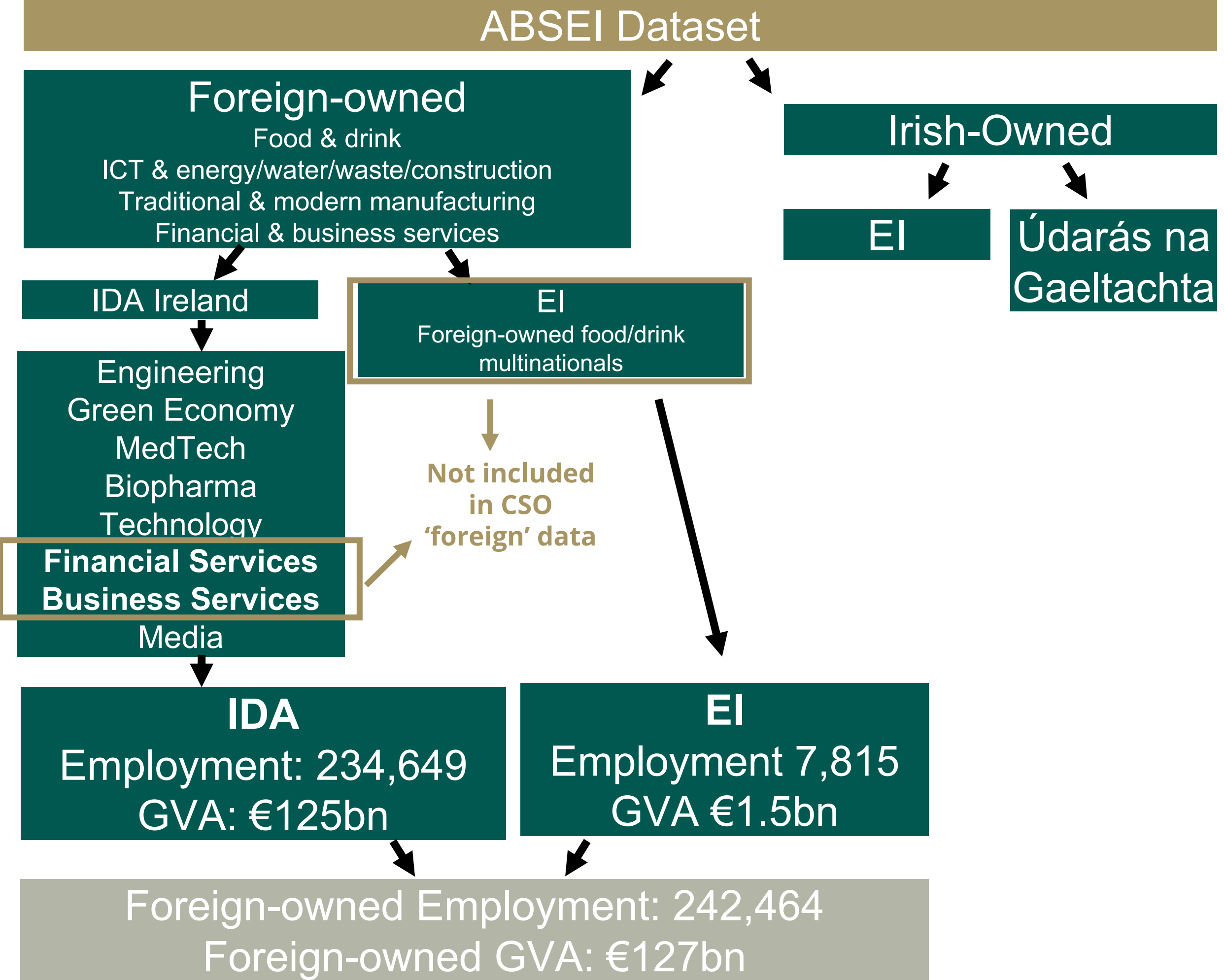
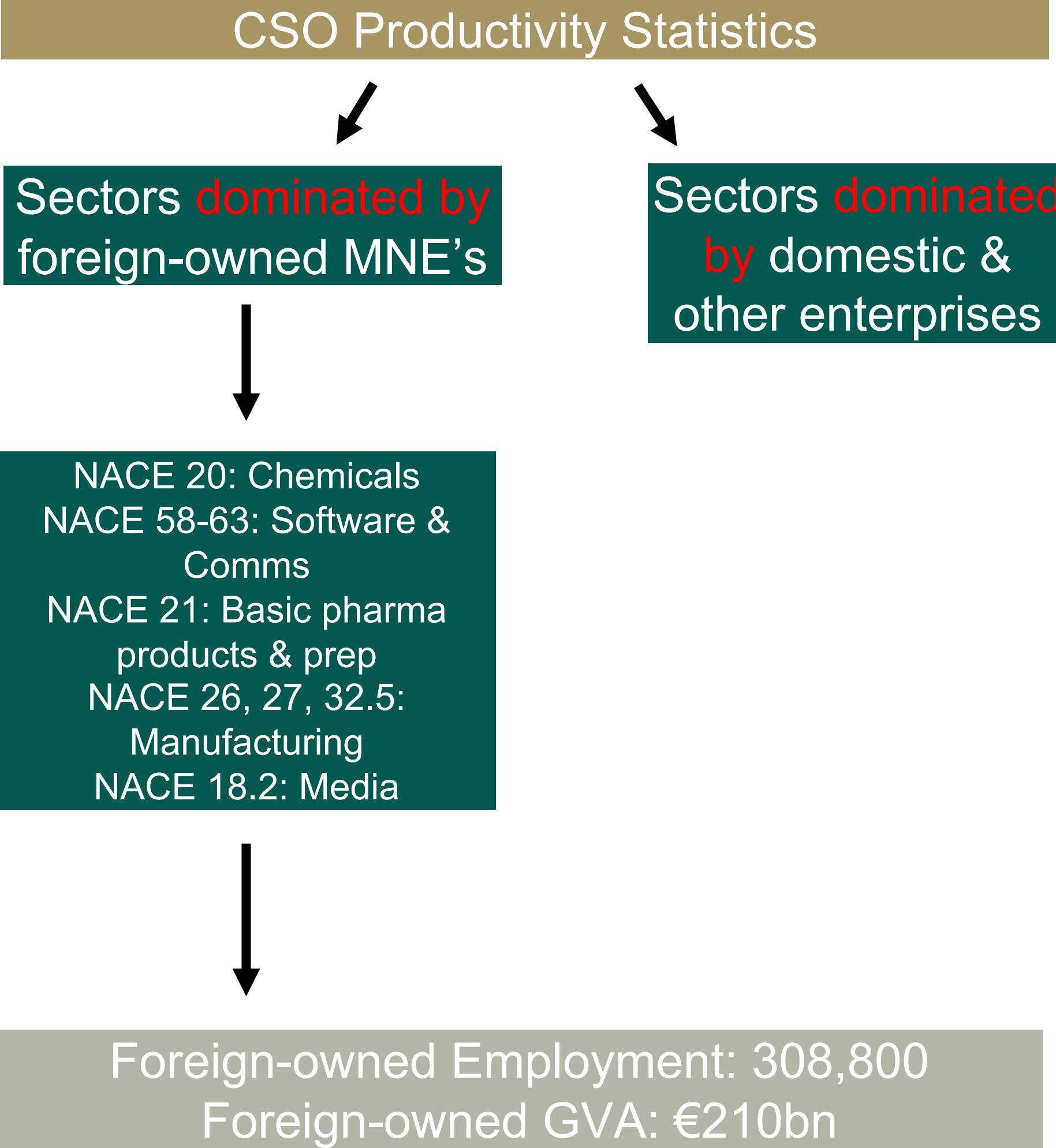
## Objective:

- *Consider changes in labour productivity and payroll costs alongside an examination of the extent to which foreign-owned SEA client companies can explain overall developments in value-added, some of the main structural developments therein and the regional aspects of growth over time*

*Note: The CSO’s selection of sectors and definition of the ‘Foreign’ sector complicates comparisons across this analysis. The breakdown which can be provided at sectoral level is in many cases constrained by the need to preserve the confidentiality of data provided by individual units. Additionally, 2020 and 2021 data is impacted from the effects of COVID-19.*



# Defining “Foreign” Sector (Sectoral)



Note: ABSEI survey includes firms with >10 employees, as well as High Potential Start Ups (HPSU's) that are clients of Enterprise Ireland and excludes firms with <10 employees as well as High-Potential Start-Up (HPSU) which are not Enterprise Ireland HPSU's. The survey does include a small number of HPSU's companies with employment of <10 where there is an expectation that their employment will exceed 10 in the following survey.  
Note: 'dominated by foreign-owned' = MNE turnover exceeds 85% of total [balance = sectors 'dominated by domestic & other']



# Preliminary Results: Value-Added



ABSEI is typically a subset of CSO, therefore it is expected that GVA\* should be different... **but these client companies had previously 'explained' c.100%+ of the GVA** (for foreign-owned enterprises)

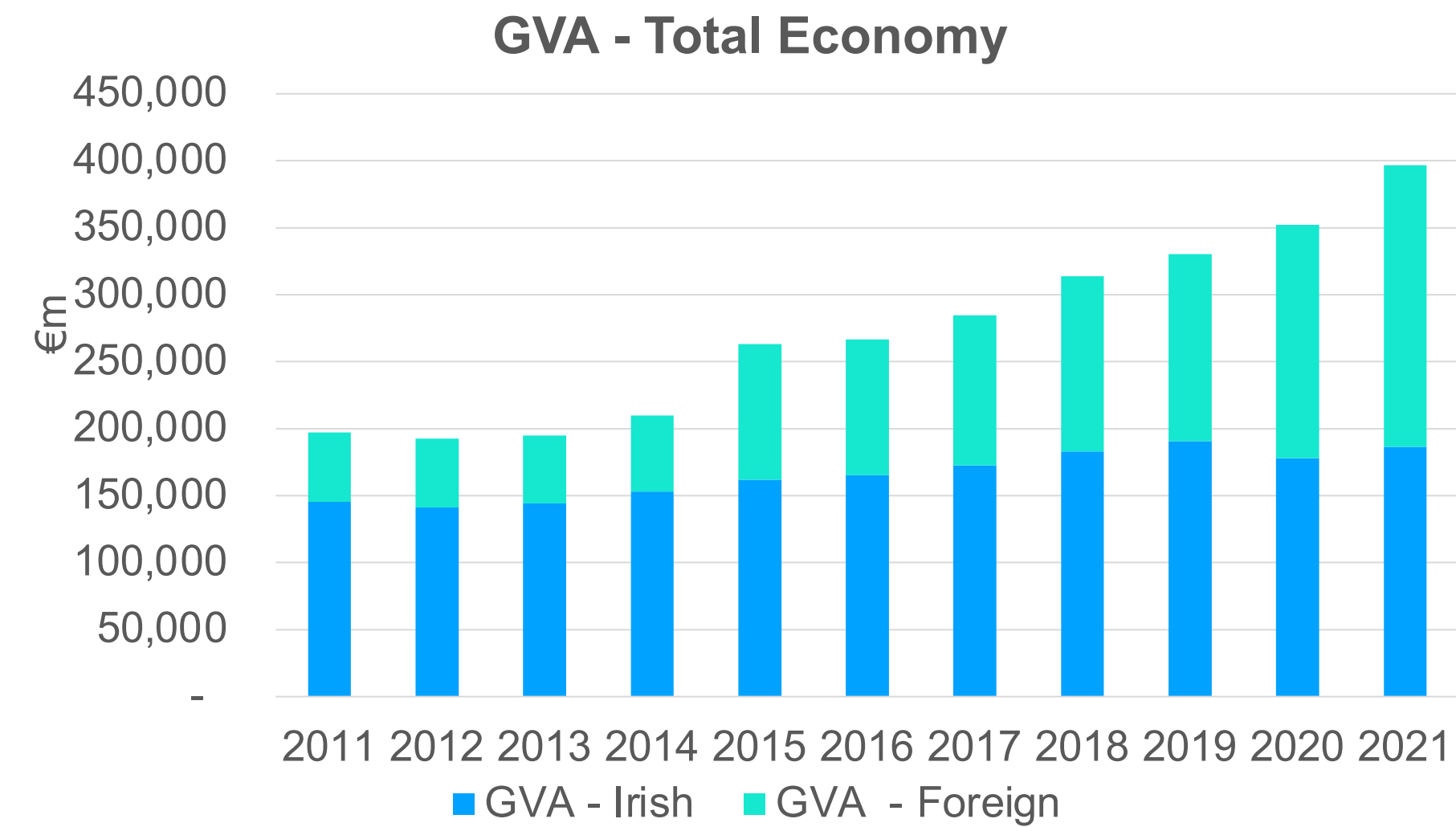
**However**, the % of CSO's 'foreign-dominated' GVA\*\* accounted for has been **decreasing** for foreign-owned client companies of the various State enterprise agencies...

By 2021, gap = €83bn. (or 40% = 'unexplained'...or at least, unclear)

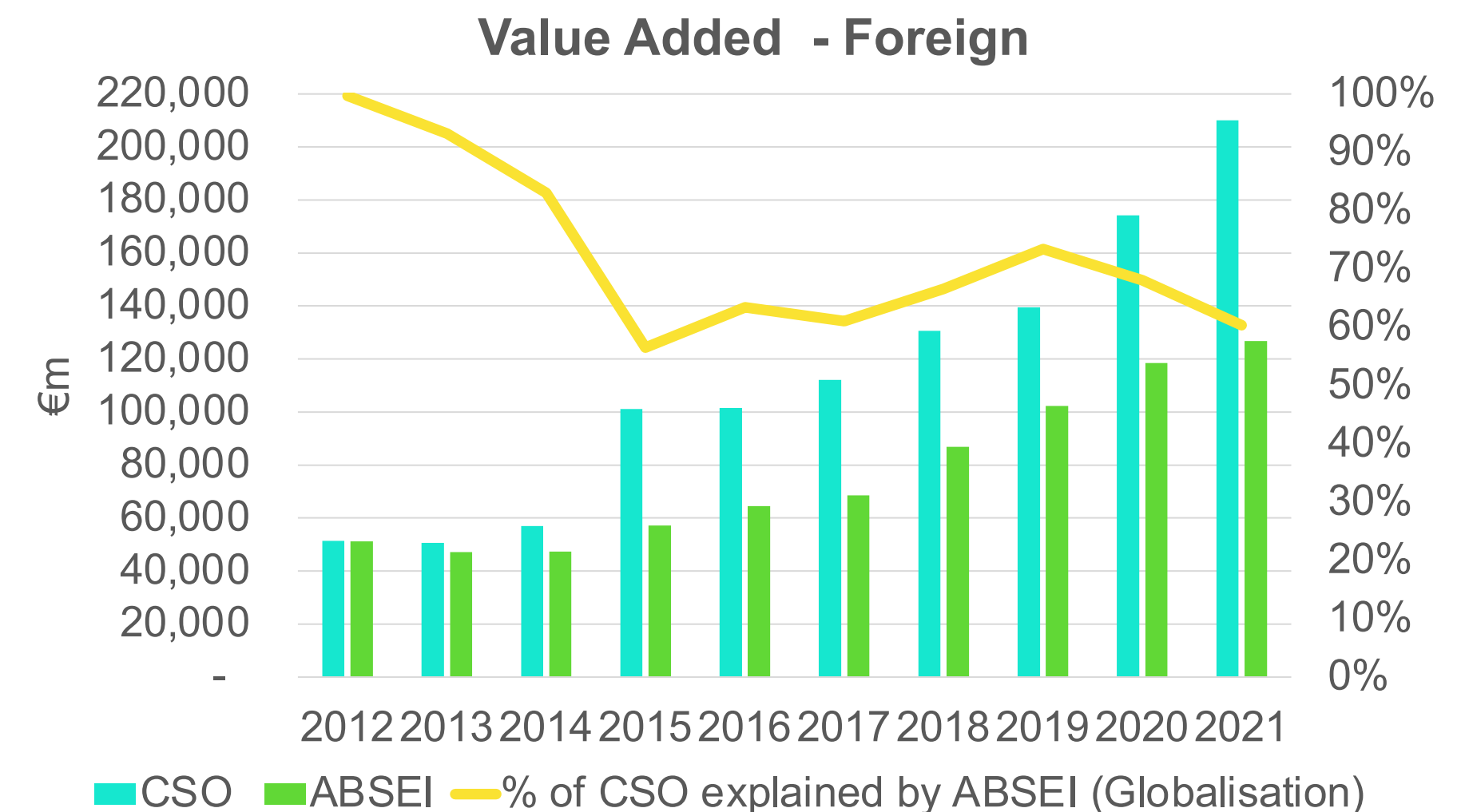
Aligning definitions by removing Financial/Business Services firms plus Food Multinationals from ABSEI definition would widen this gap = €94bn. (or 55% of total)

Further work: impact of statistical definitions and reporting coverage

\*GVA is the difference between the value of goods and services produced and the cost of raw materials and other inputs that are used up in the production process. It is closely related to GDP and excludes taxes and subsidies on products and production.  
 \*\*This definition relates to those sectors where MNE turnover on average exceeds 85% of the sector total.



Source: CSO



Source: CSO, ABSEI

# Preliminary Results: Labour Productivity (LP)

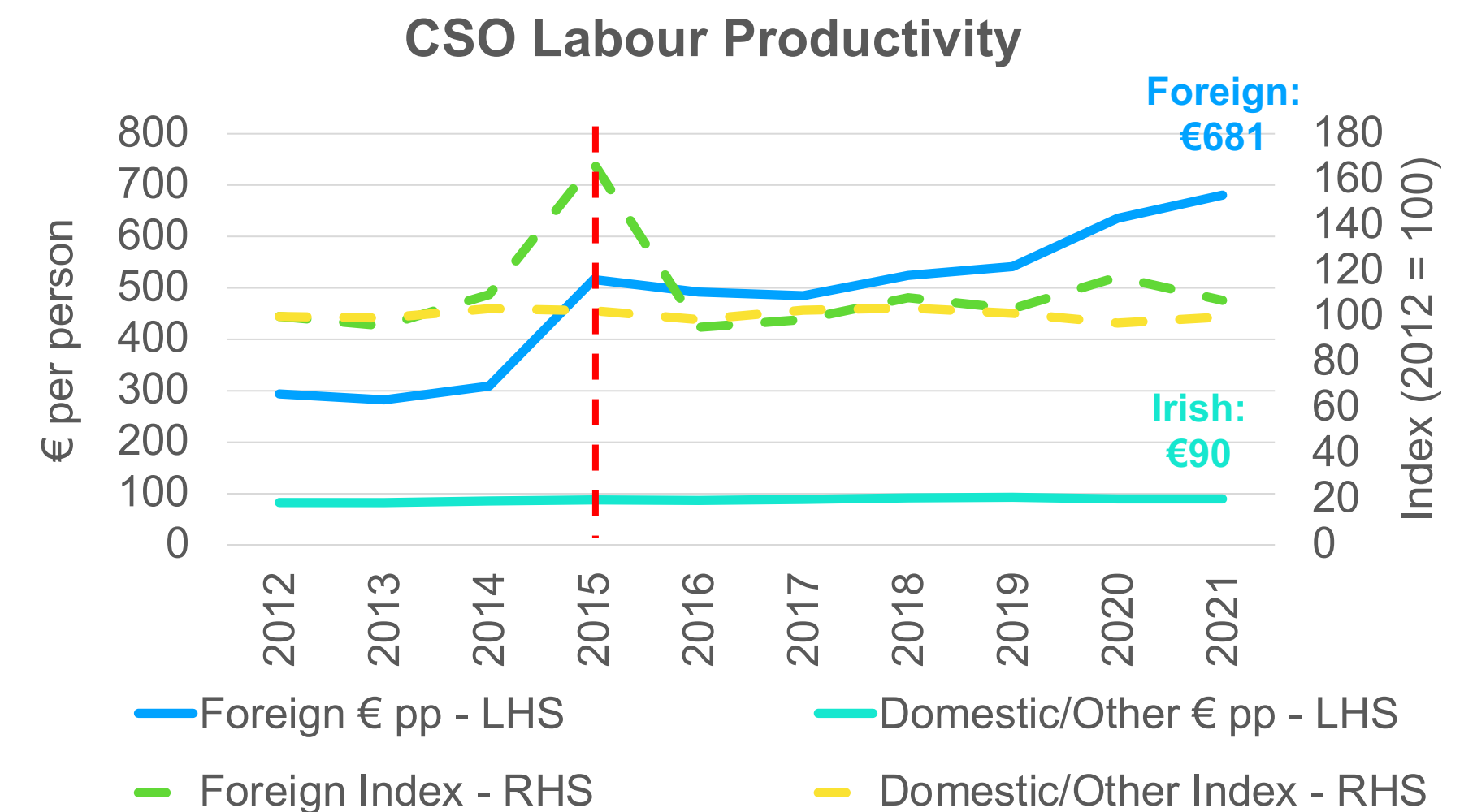
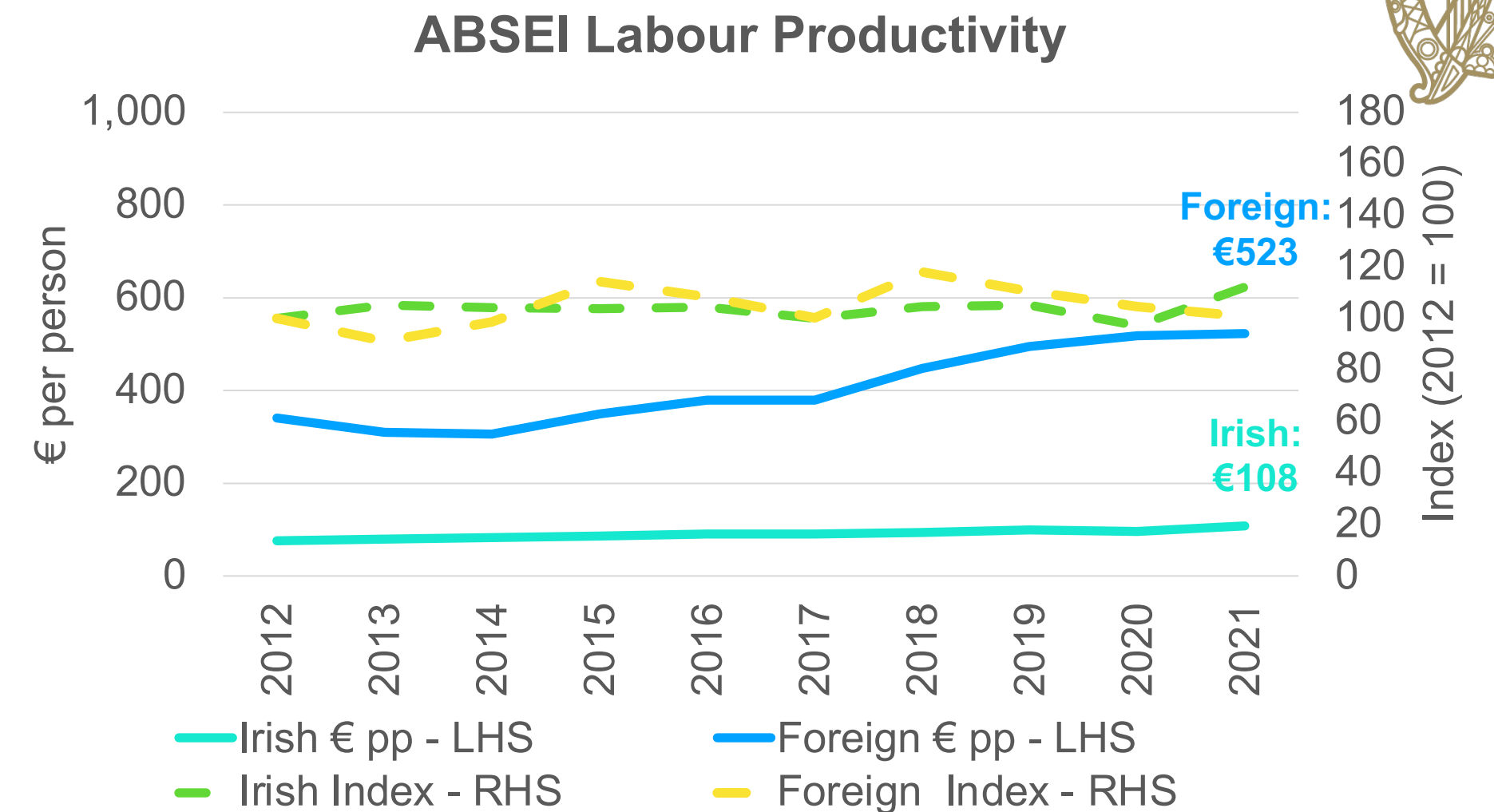


Variance **between IE-owned SEA client companies** (trading internationally) vs. CSO's 'domestic/other' (non-MNE) cohort

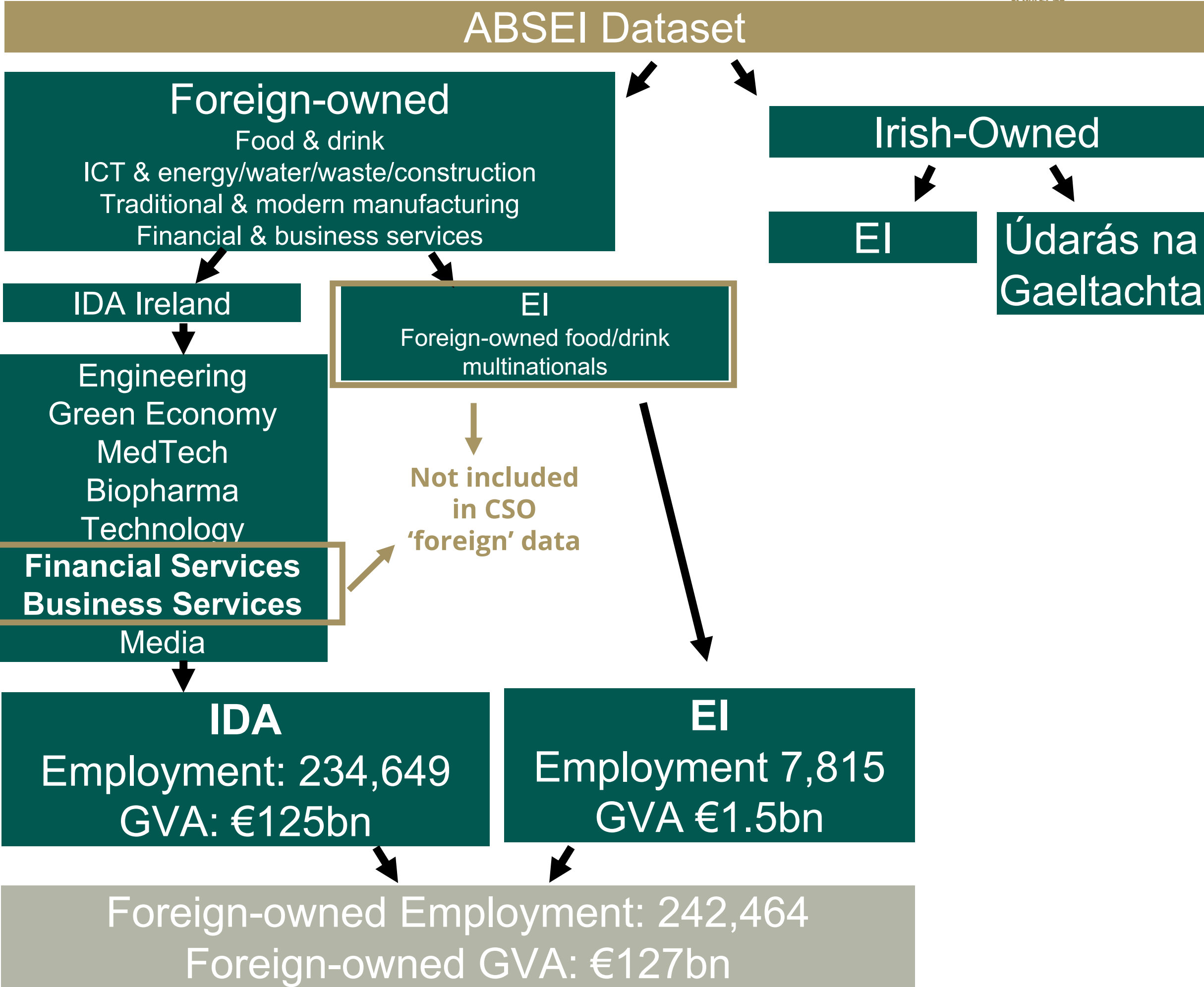
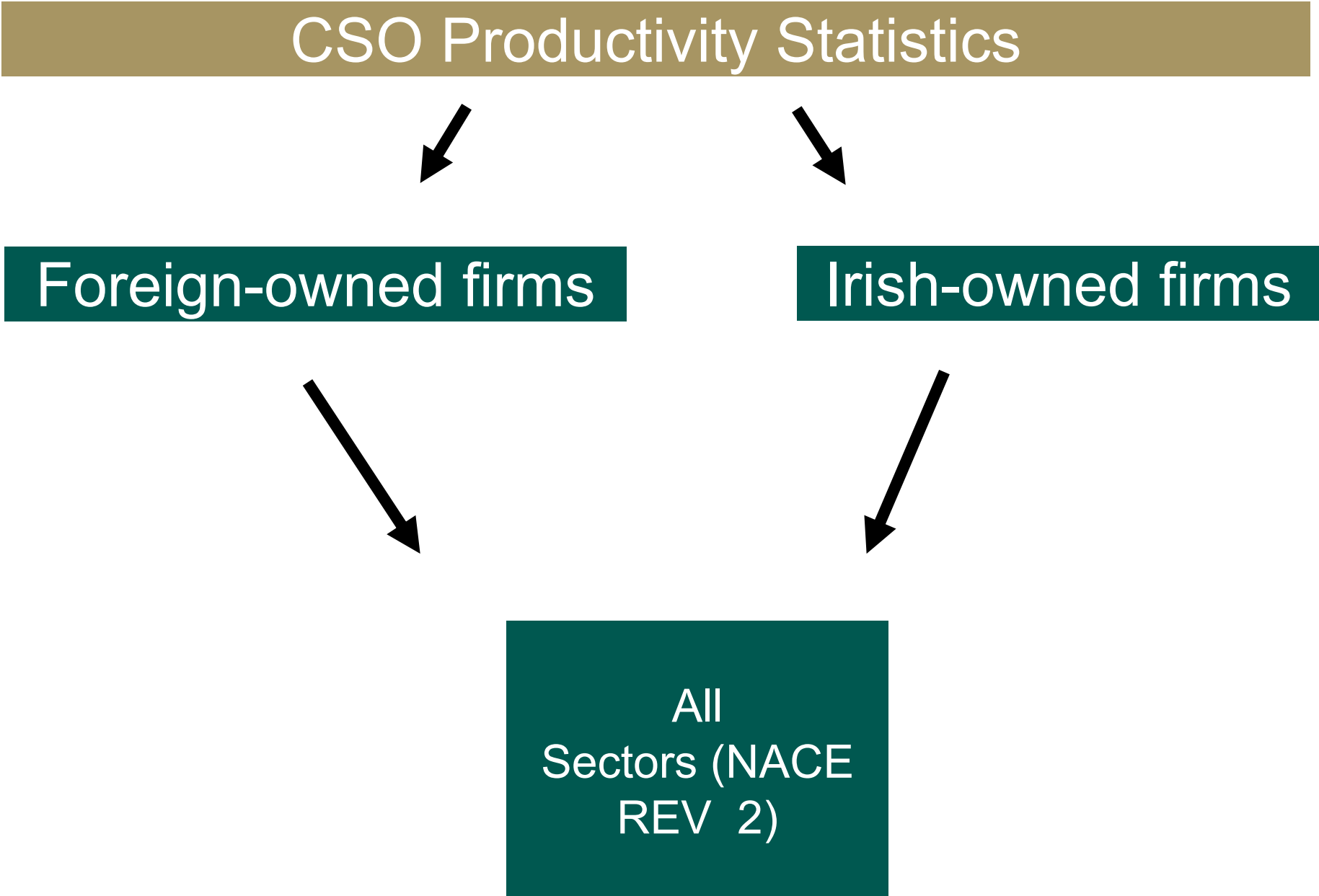
- Client companies do report higher LP vs. CSO data since 2016 - difference of +5% in 2016 to +20% in 2021 (Appendix B2) - but relatively low annual growth in recent years
- This gap is an 'average' only – greater variance for certain sub-sectors (forthcoming slide)
- Impact of varying statistical definitions and reporting requirements (see: Appendix A)

Both datasets show a divergence between LP for 'Foreign' vs. 'Irish' since 2014, **however**, more pronounced in CSO dataset...

- **But** a comparison of simple % change over the past decade is of limited use as there is a clearly a **structural break** from 2015 in the CSO data
- Likely due to several factors, including IP and redomiciled PLC's
- SBS also show IE-owned firms lag foreign-owned firms (see: Appendix C)



# Defining “Foreign” Sector (Ownership)



Note: ABSEI survey includes firms with >10 employees, as well as High Potential Start Ups (HPSU's) that are clients of Enterprise Ireland and excludes firms with <10 employees as well as High-Potential Start-Up (HPSU) which are not Enterprise Ireland HPSU's. The survey does include a small number of HPSU's companies with employment of <10 where there is an expectation that their employment will exceed 10 in the following survey.

Note: The criteria used to determine ownership is whether the immediate owner is a foreign or domestic company.

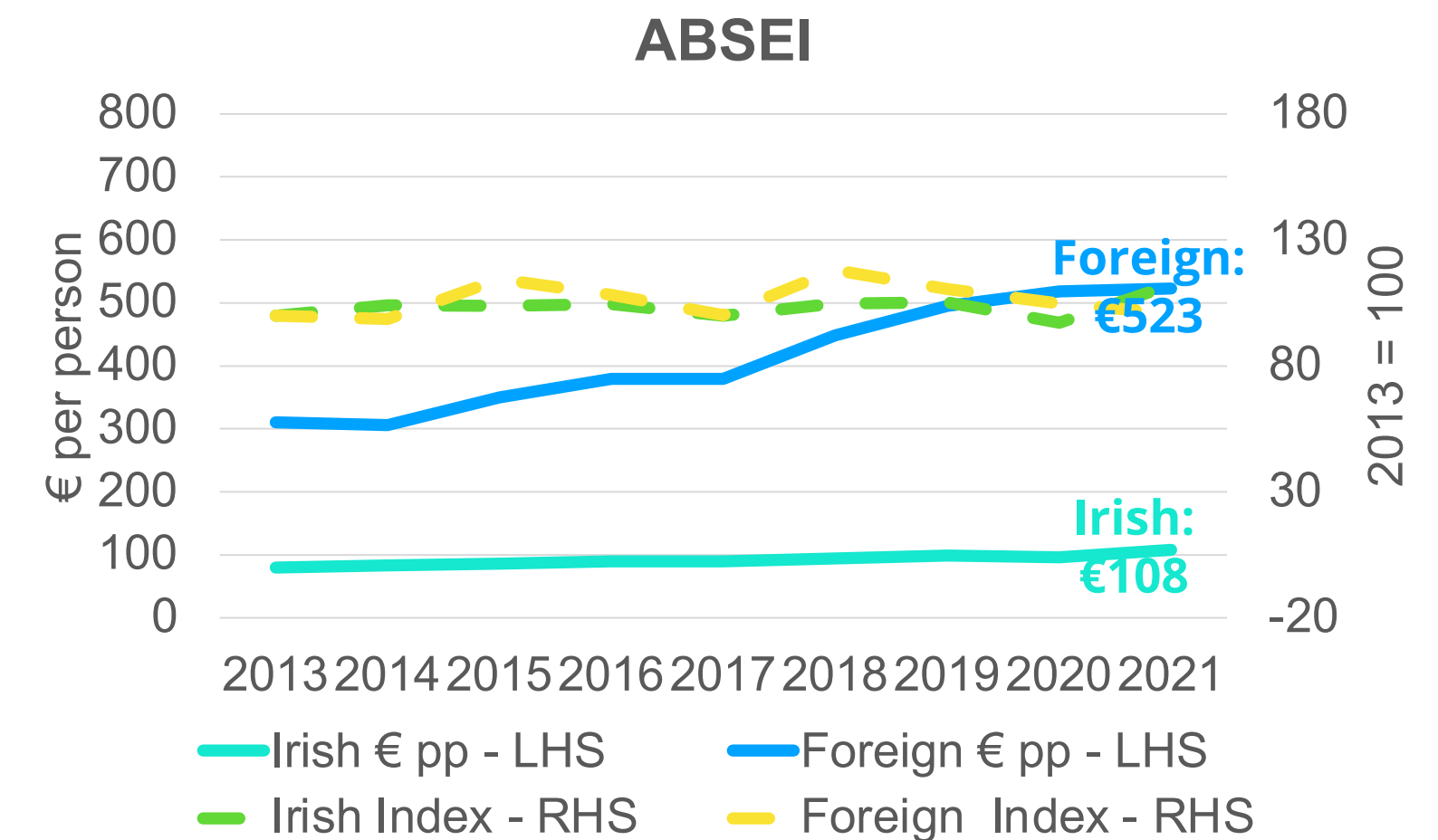
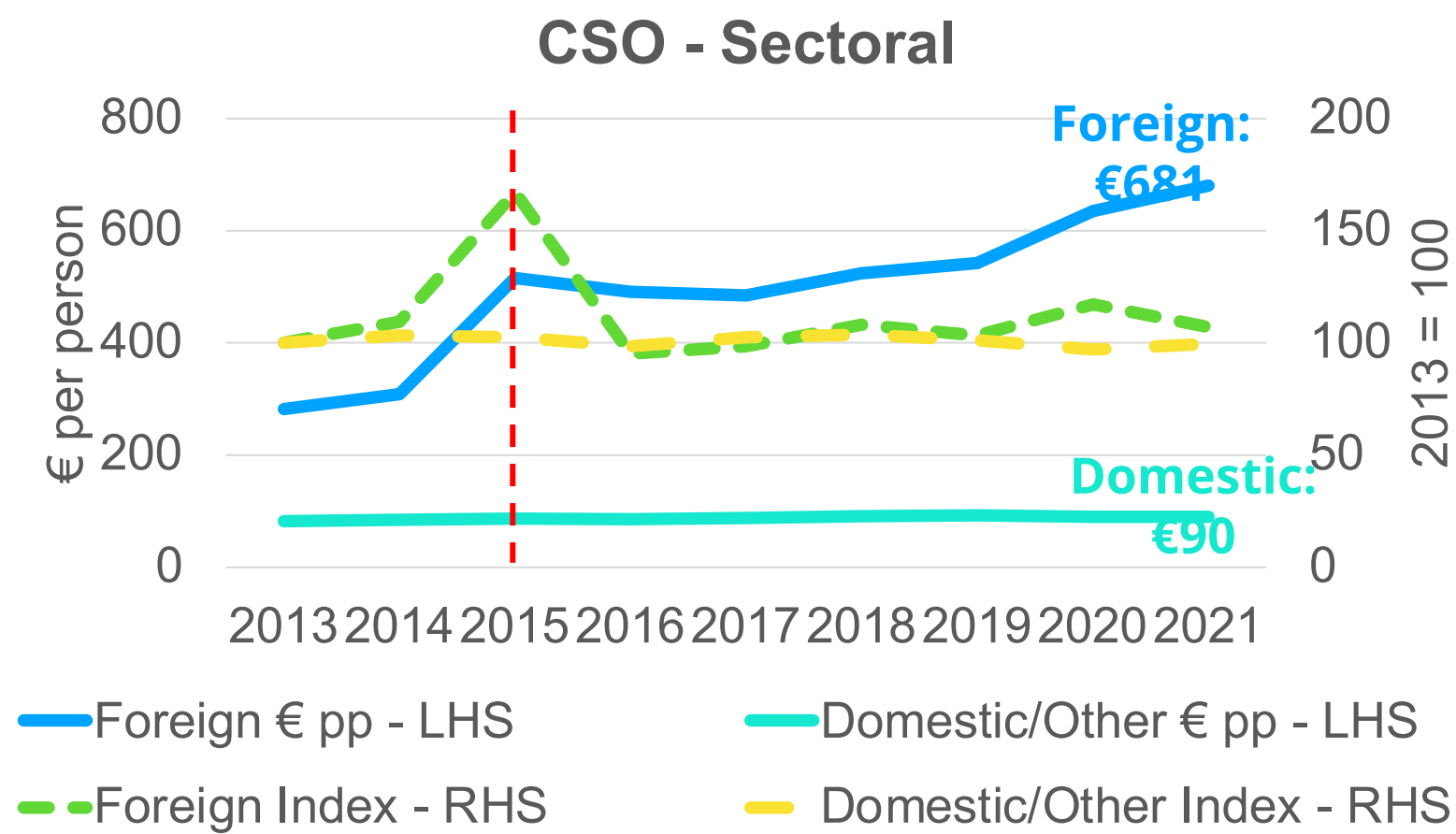
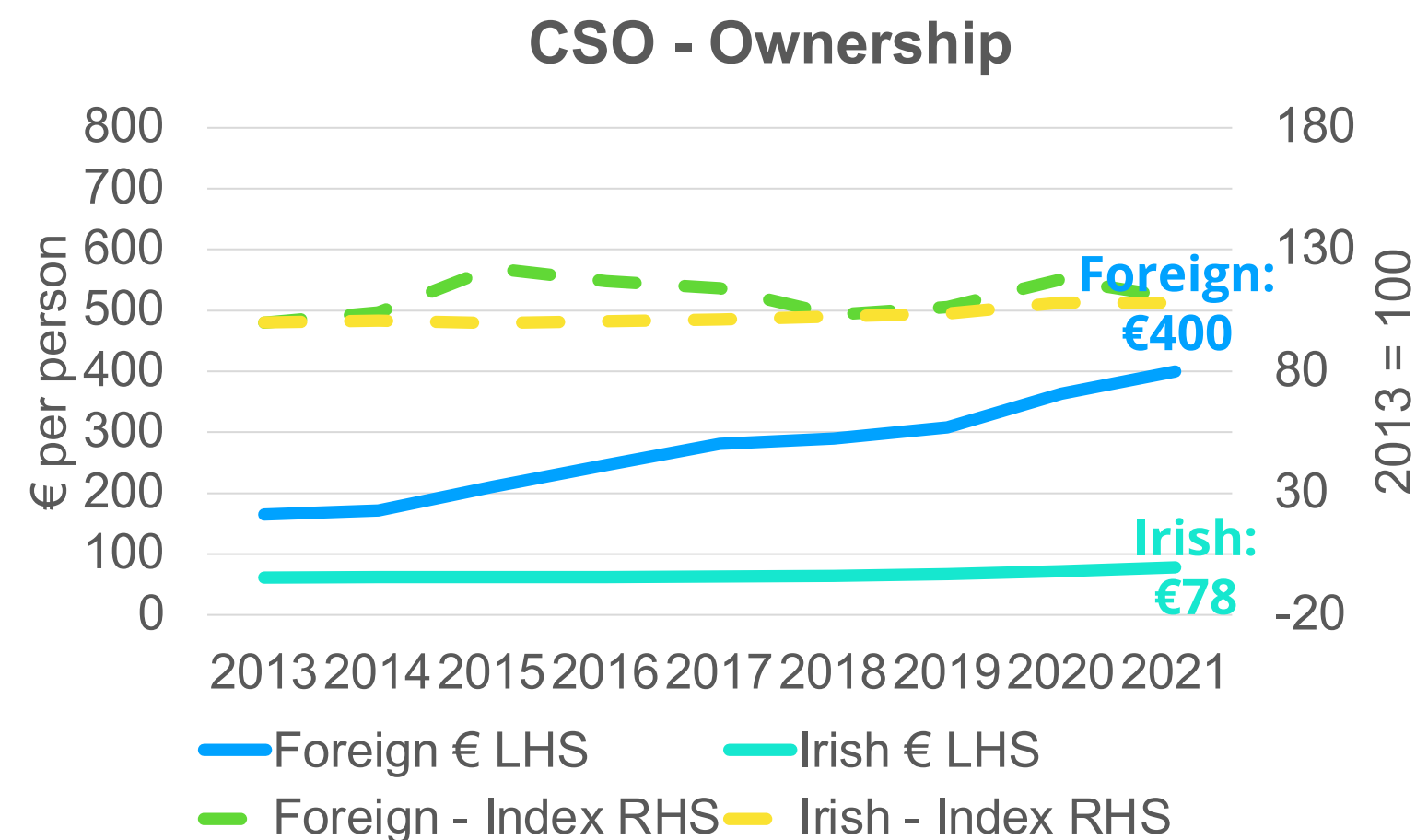


# Preliminary Results: LP (CSO Ownership)

CSO's newly published Ownership data incorporated into analysis

Client companies report higher LP than CSO's Irish-owned companies since 2013 (+30% in 2013 to +38% in 2021)

The divergence in Foreign vs Irish owned is also apparent in CSO's 'Ownership' data





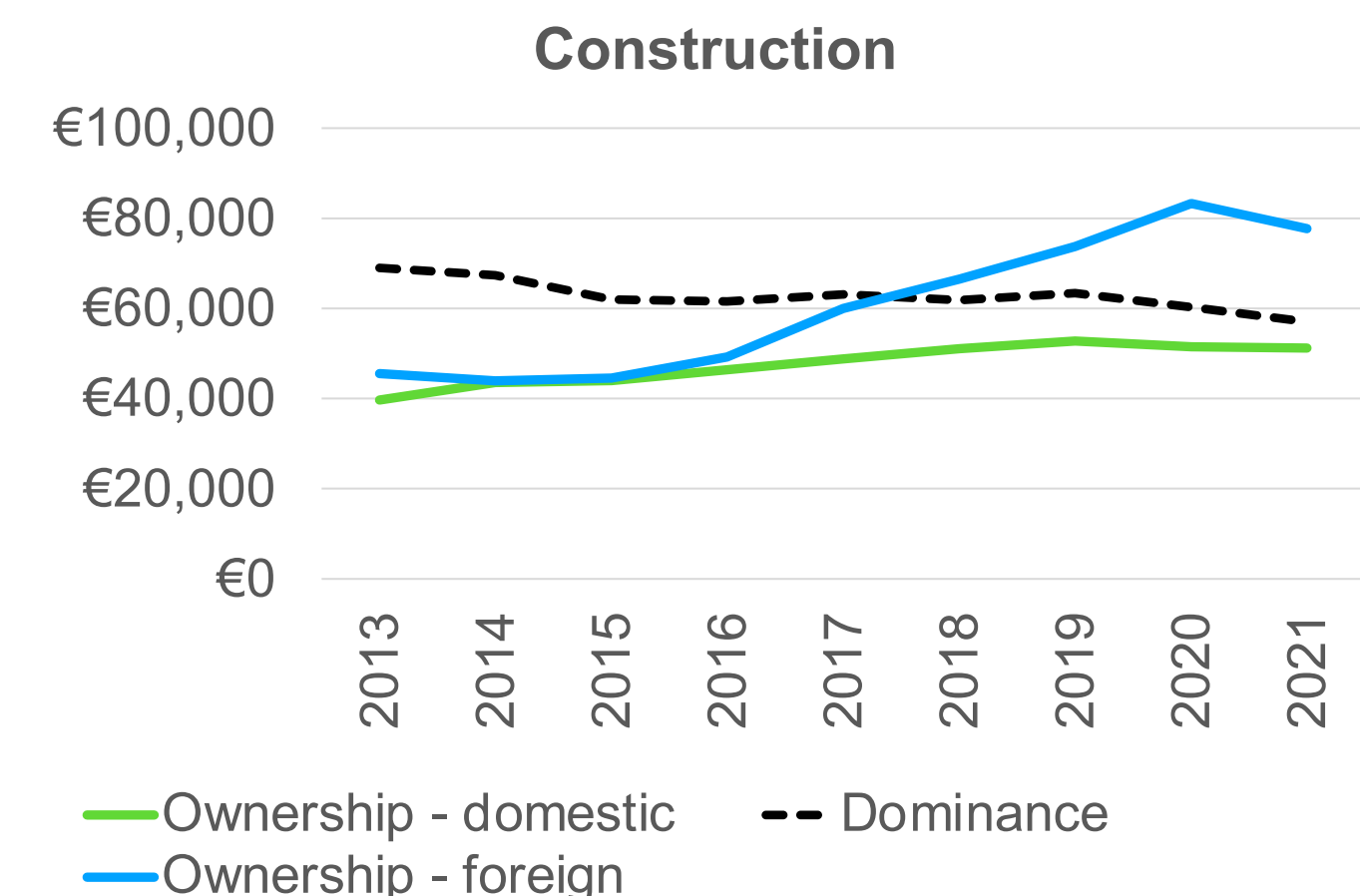
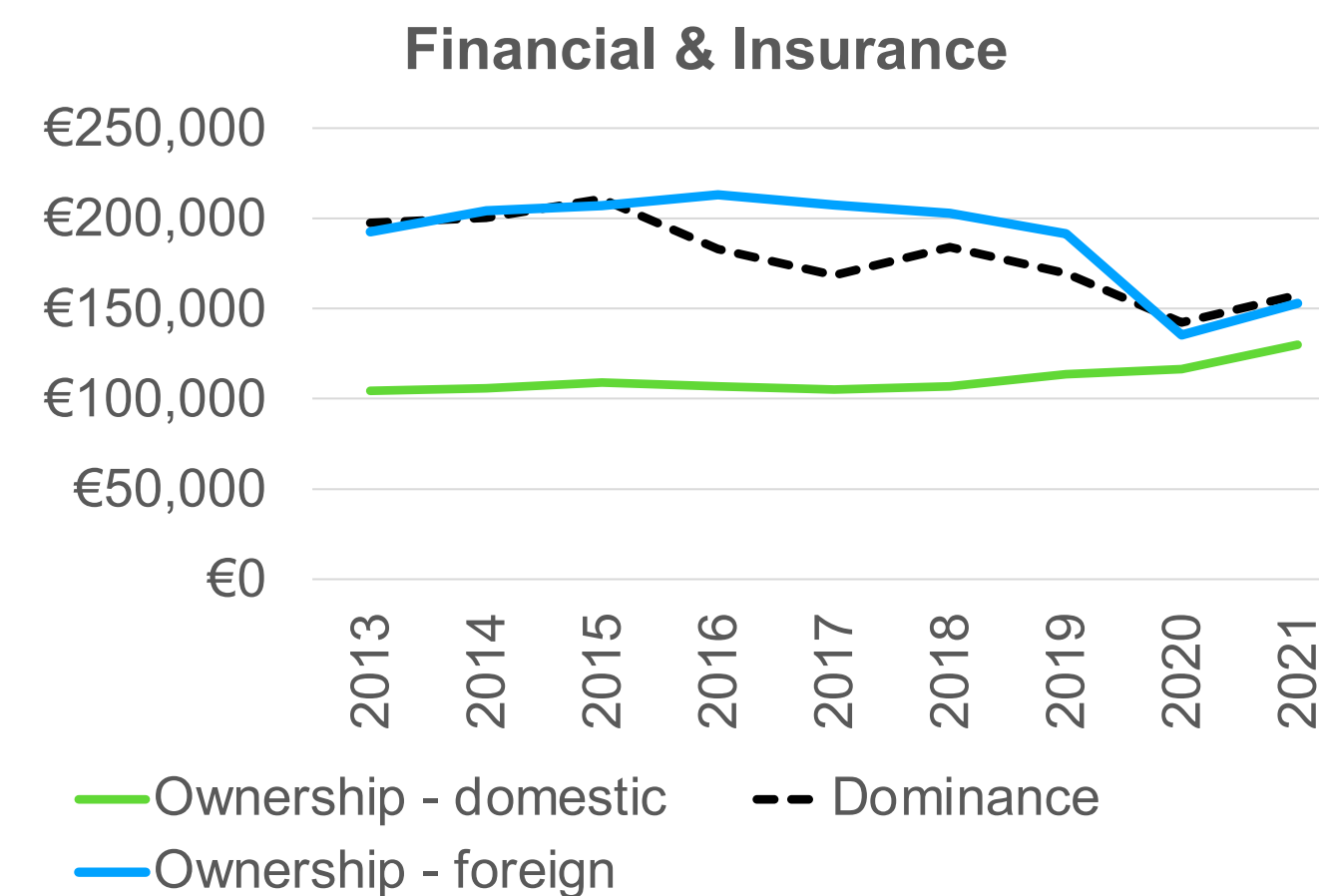
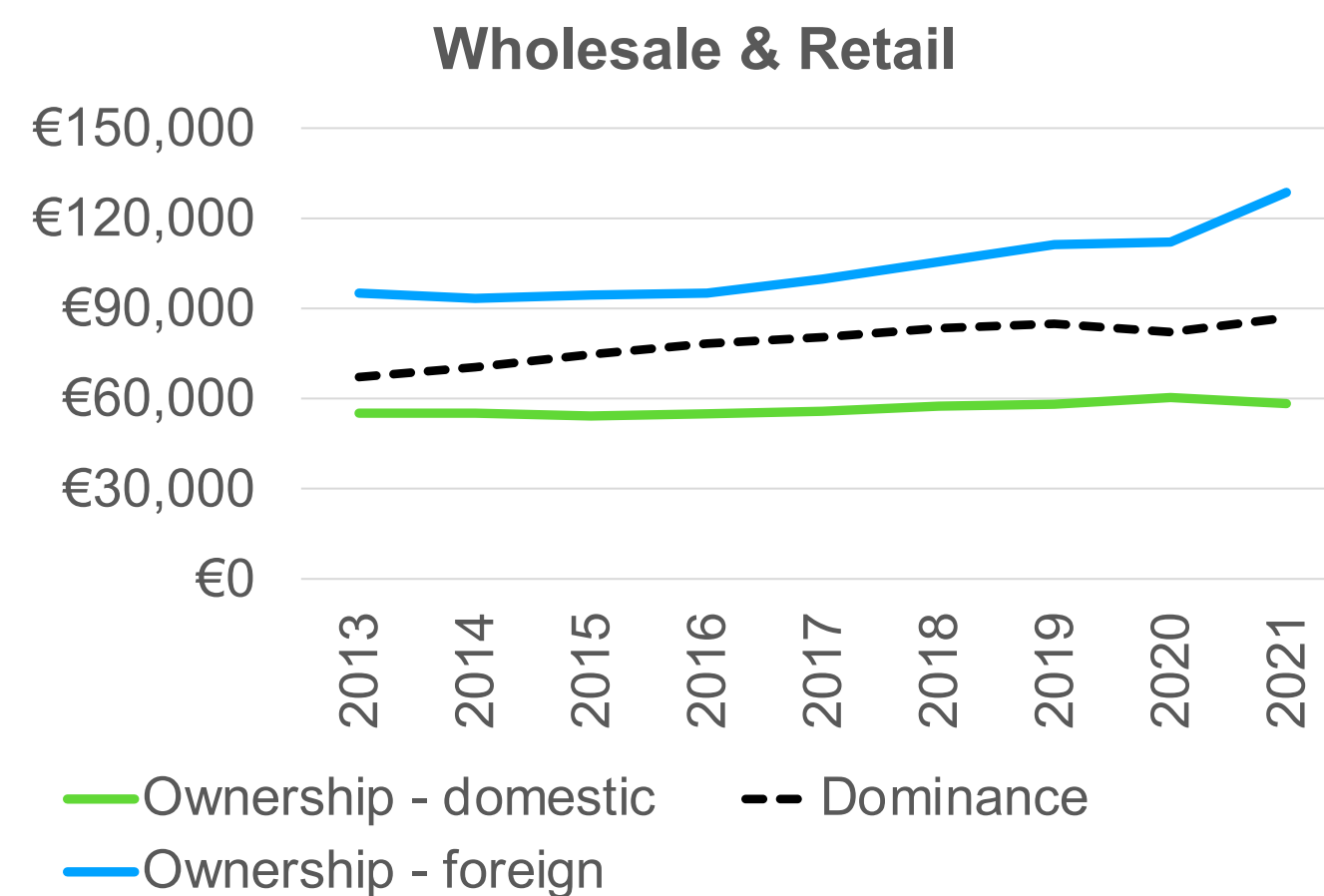
# Preliminary Results: LP by Sub-sector



New ownership data allows us to compare LP in sectors dominated by domestic firms ('dominance') to LP of domestic firms within those sectors ('ownership' basis)

Foreign-owned firms generally more productive than domestic equivalents, even within domestic dominated sectors:

- foreign firms required to reach a level of success at home before expanding abroad, whereas, companies at all levels of development are included among domestic firms



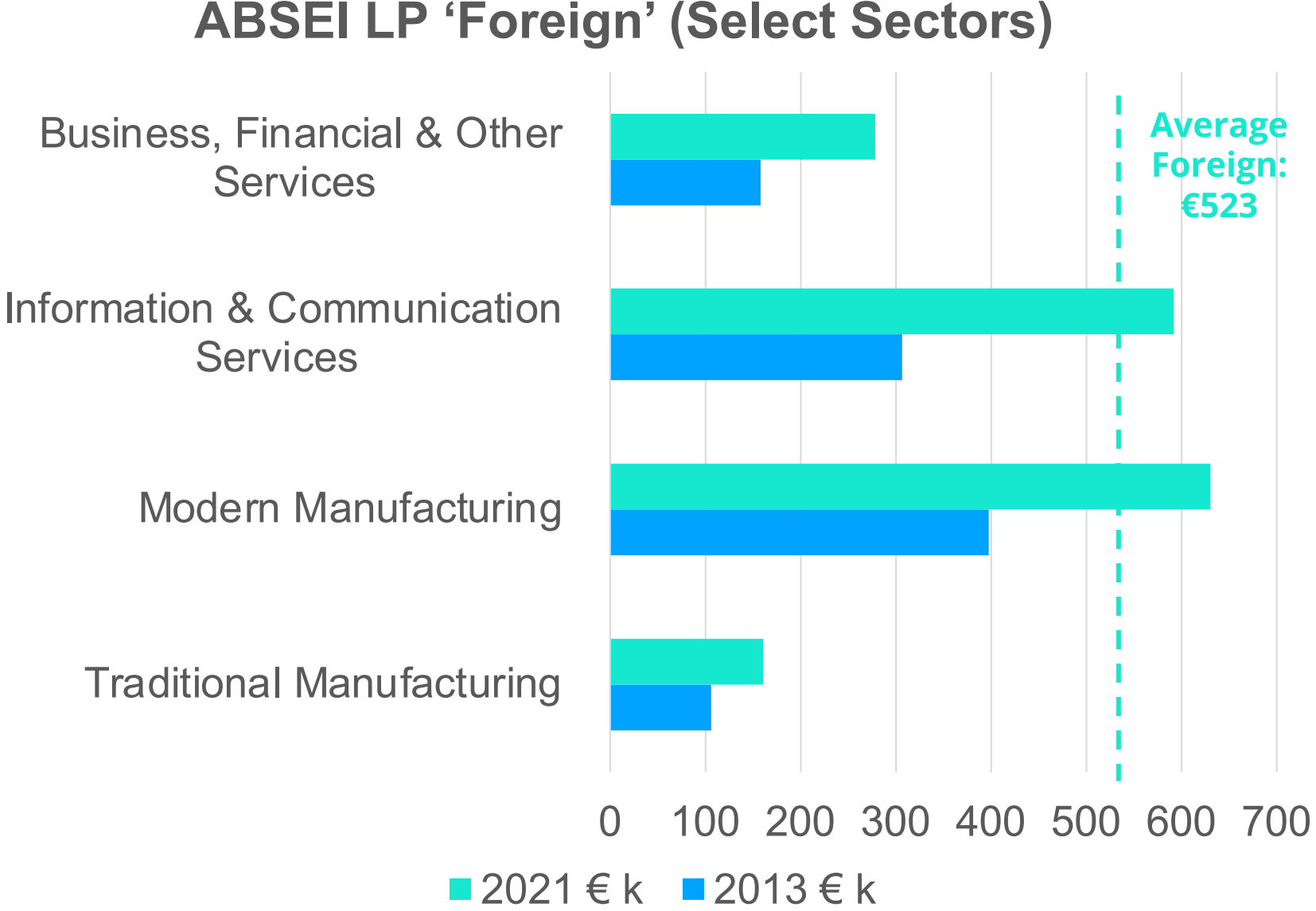
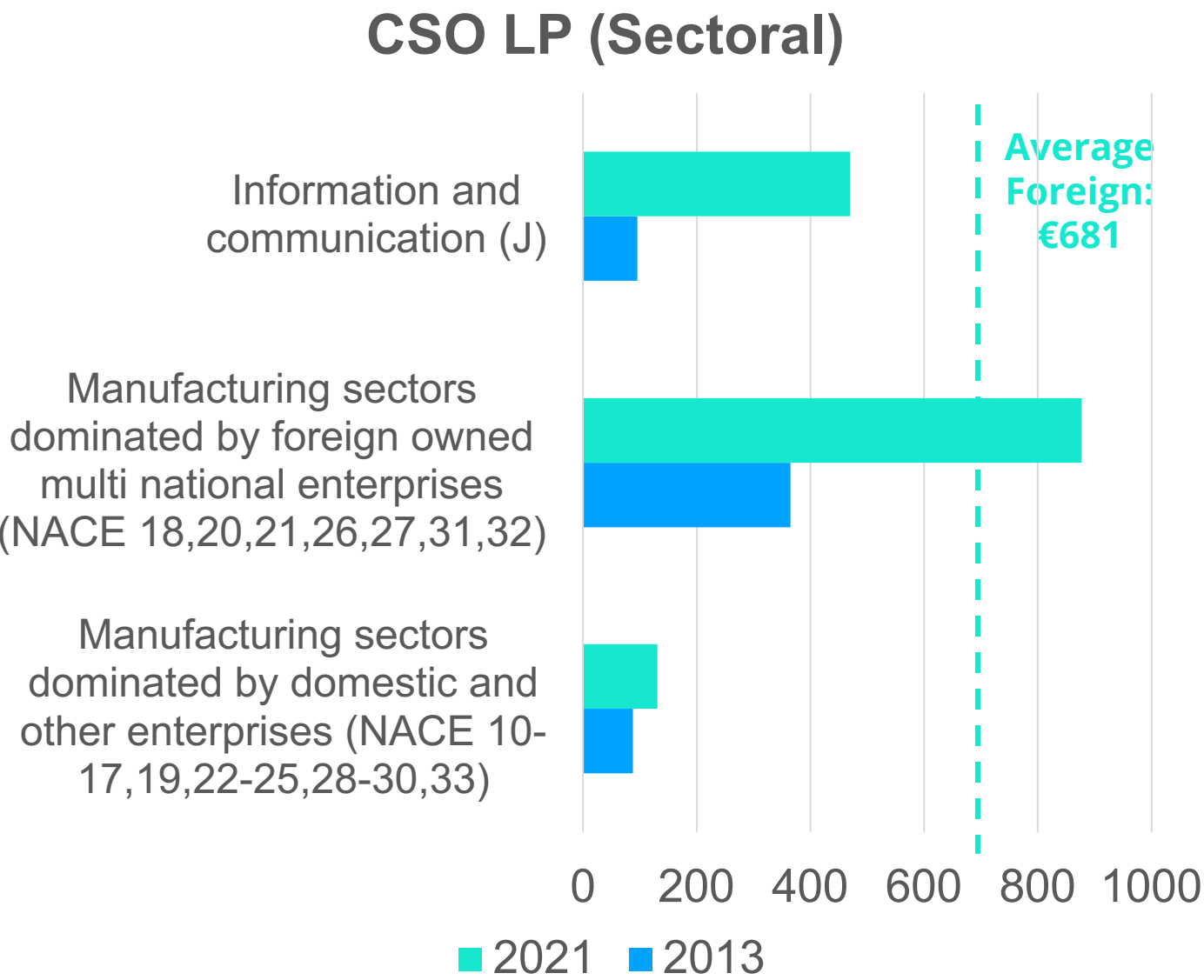
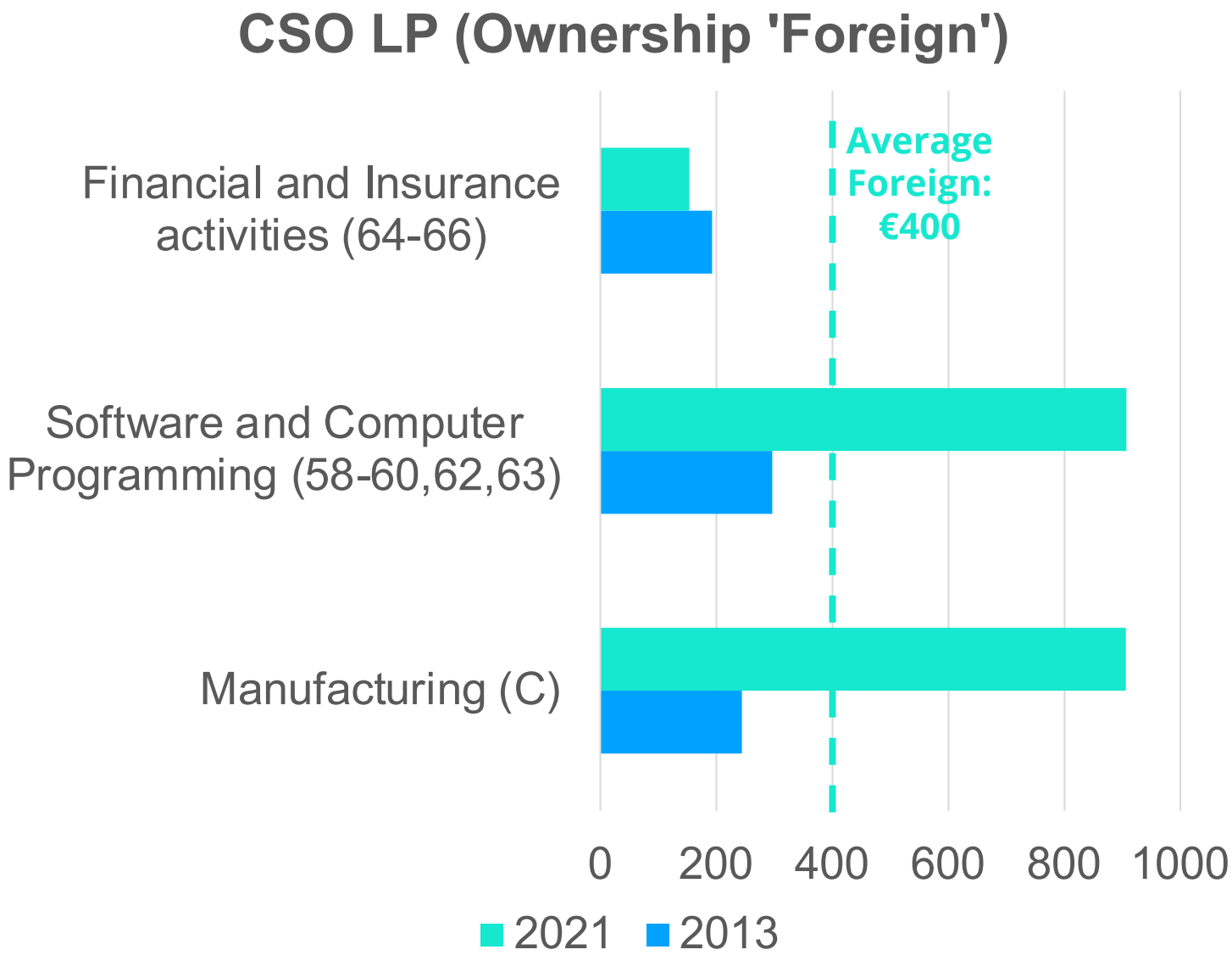
# Preliminary Results: LP by Sub-sector



Variation in LP 'foreign' by sub-sector

Key drivers of the increased productivity p/person are ICT & Modern Manufacturing sub-sectors

Further analysis of sectoral trends will be undertaken



# Preliminary Results: Payroll



Irish-owned SEA client companies also report a higher average payroll cost than the CSO's 'domestic/other' (i.e. non-MNE) cohort

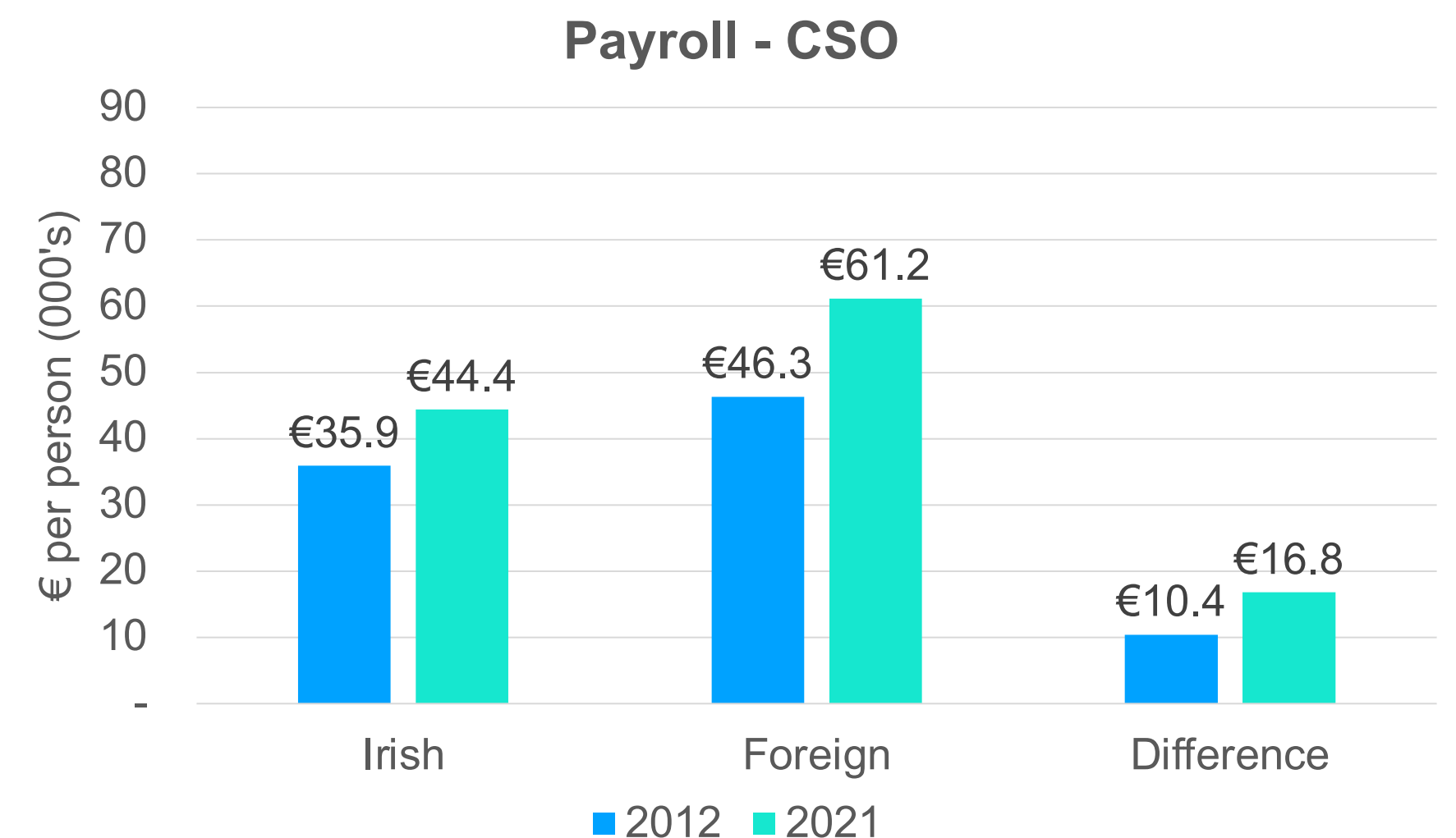
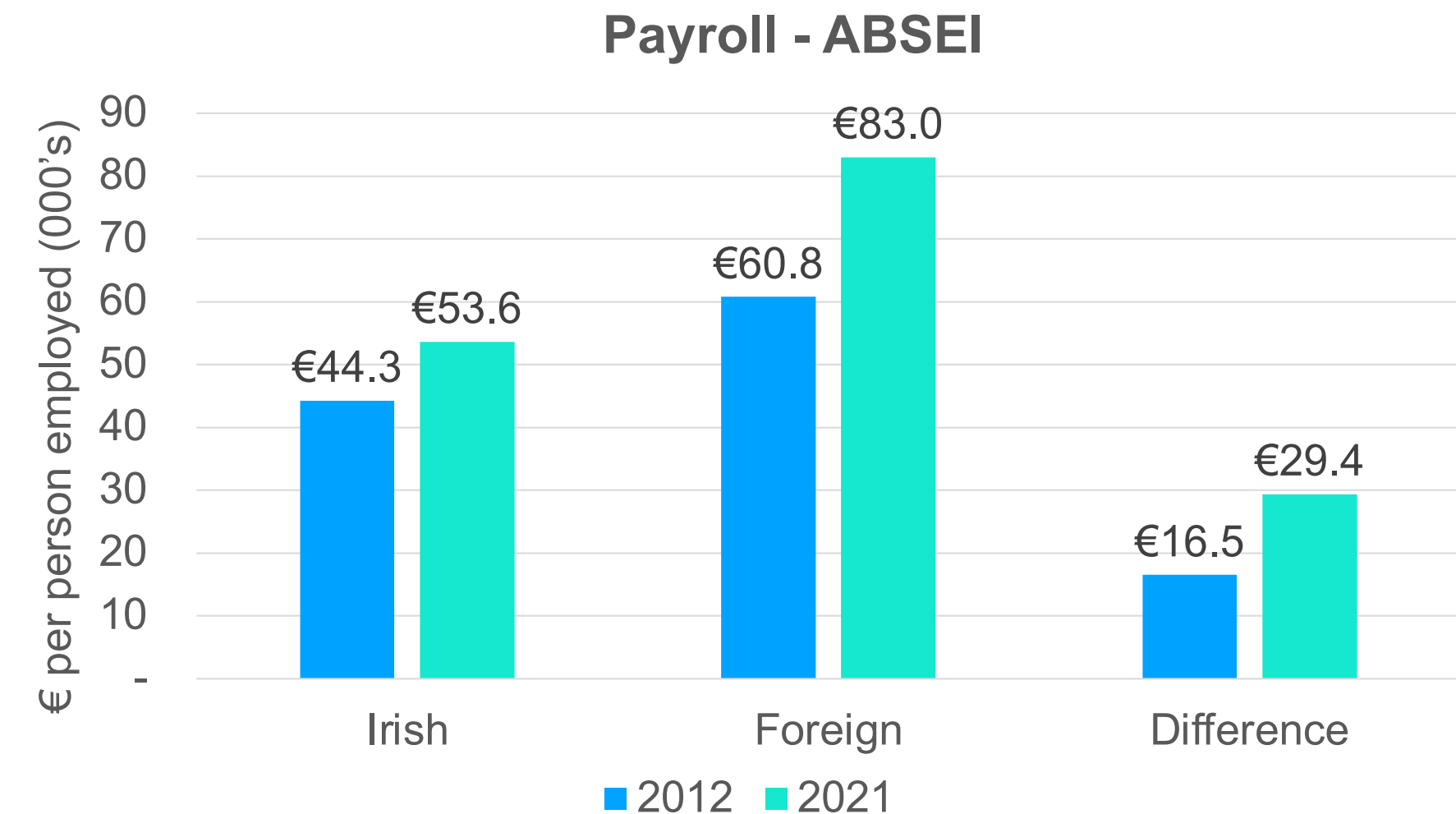
- €53.6k ABSEI IE-Owned (2021)
- €44.4k CSO Domestic (2021)

Wages rose faster for CSO's 'Domestic/Other' from 2012 to 2021

- 24% CSO Domestic/Other
- 21% ABSEI IE-owned

For 'Foreign' firms, ABSEI data shows a larger increase

- ABSEI +36% (€61k in 2012, €83k in 2021)
- CSO +32% (€46k in 2012, €61k in 2021)



# Preliminary Results: Payroll Costs by Sector

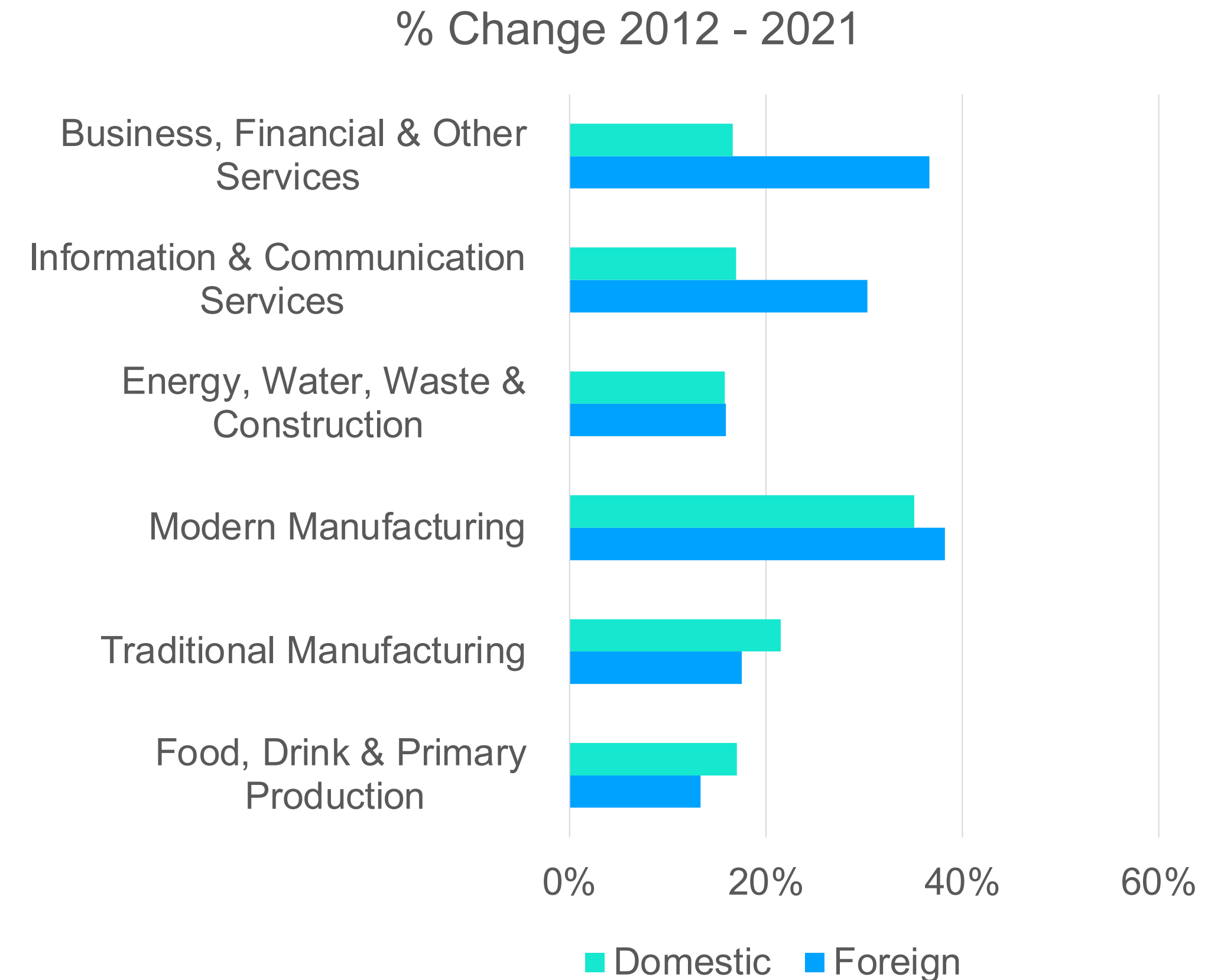


Payroll costs p/employee in the ABSEI 'Foreign' data have risen 36% overall, **however.....**

Rate of growth varies by sub-sector

- *Modern Manufacturing +38%*
- *Business, Financial & Other Services +37%*
- *ICT +30%*
- *Traditional Manufacturing +18%*

Further examination of trends at sub-sectoral level will be undertaken



Source: ABSEI





# EU and USA Industrial and State Aid Developments (1)



The pursuit of open strategic autonomy in response to global developments has led to changes in the EU State Aid policy

- *Temporary Crisis and Transition Framework*
- *European Chips Act*
- *US Inflation Reduction Act*
- *US CHIPS and Science Act*
- *OECD BEPS project*
- *Open Strategic Autonomy: IPCEIs (see next slide)*

While some of the new flexibilities in EU State Aid policy may benefit Ireland, overall, a more permissive regime could well present a competitiveness threat to Ireland if larger countries are able to outbid smaller countries for strategic invest

Given the highly globalised nature of Ireland's economy, these developments will have a further impact on future versions of the data presented today

*D/Finance: "given the proportion of manufactured goods that Ireland imports, any restructuring of global semiconductor value chains would likely have significant effects on the Irish economy"*



# EU and USA Industrial and State Aid Developments (2)



Approved Important Projects of Common European Interest (IPCEI)

European Commission | COMPETITION

	First IPCEI on Microelectronics (2018)	First IPCEI on Batteries (2019)	Second IPCEI on Batteries – EuBatIn (2021)	First hydrogen IPCEI – Hy2Tech (2022)	Second hydrogen IPCEI – Hy2Use (2022)	Second IPCEI on Microelectronics and Communication Technologies (2023)	Total
Participating companies	29	17	42	35	29	56	208 179*
Participating projects	43	22	46	41	35	68	255
State aid approved (EUR billion)	1,9	3,2	2,9	5,4	5,2	8,1	26,7
Expected private investments (EUR billion)	6,5	5	9	8,8	7	13,7	50
Participating Member States							21 with UK included as a Member State, plus Norway participated in at least one IPCEI

\*Excluding the companies that participated in more than one IPCEI





# Summary and Next Steps



Essential to deepen our understanding of productivity developments in Ireland

- *Important to deliver on the White Paper on Enterprise*
- *CSO continue to prioritise the engagement of productivity data at company level and more recent data releases (e.g. Quarterly Productivity Data release for Q1 2023)*

Progress with analysis

- *Sectoral and regional analysis [ABSEI data]*
- *Continue engagement with CSO and ABSEI (specifically: statistical definitions and survey coverage)*

Aim to finalise/publish updated analysis in Q4 2023





# APPENDIX



# Appendix A: Important considerations – statistical definitions & reporting coverage



- ABSEI survey: excludes firms with <10 employees/HPSUs
- CSO Productivity Statistics (PS) series: difficulty in isolating exporting vs. non-exporting firms/sectors
- Also, definition of ‘foreign’ (*sectors dominated by foreign-owned MNEs*) ≠ all GVA, etc. attributable to firms that are foreign-owned in these sectors – implications for composition/interpretation of the ‘domestic/other’ sector
- Differing classification of ‘Irish’ vs. ‘Foreign’ across datasets (i.e. Financial Services & Food/Drink MNEs)
- Differing classifications: ABSEI (IE-owned vs. foreign-owned) & CSO PS (foreign-dominated sectors vs. domestic/other sectors)

# Appendix B2: Preliminary Results: Labour Productivity by Sector



Comparing LP for 'IE-owned' (ABSEI) versus 'domestic & other' (CSO)

Further analysis of sectoral trends will be undertaken

**Table: Labour Productivity – 'Irish' (or SEA client companies) vs. 'Domestic/Other'**

	2012	2013	2014	2015	2016	2017	2018	2019	2020 (COVID)	2021 (COVID)
ABSEI	76	80	83	86	90	90	94	99	96	108
CSO	83	82	85	87	86	88	91	93	90	90
Difference	-8%	-3%	-2%	-1%	+5%	+2%	+3%	+7%	+7%	+20%

Source: CSO, ABSEI, Authors own calculations

# Appendix B3: Preliminary Results: Labour Productivity by Sector



Comparing LP for 'IE-owned' (ABSEI) versus 'Irish-owned' (CSO)

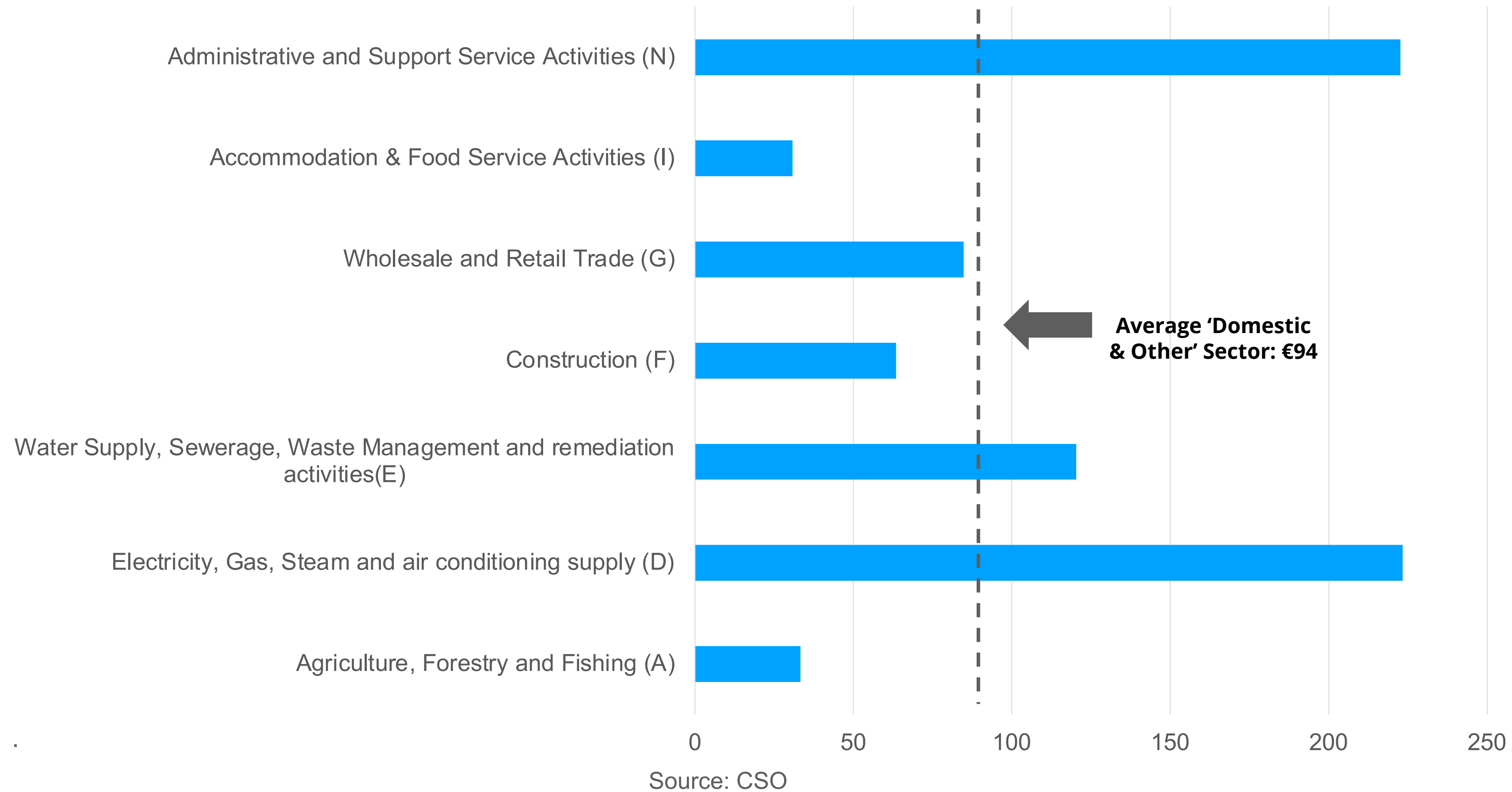
Further analysis of sectoral trends will be undertaken

**Table: Labour Productivity – 'Irish' (or SEA client companies) vs. 'Domestic/Other'**

	2013	2014	2015	2016	2017	2018	2019	2020 (COVID)	2021 (COVID)
ABSEI	80	83	86	90	90	94	99	96	108
CSO	61	62	62	62	63	64	67	72	78
Difference	+30%	+34%	+40%	+45%	+43%	+46%	+48%	+33%	+38%

Source: CSO, ABSEI, Authors own calculations

# Appendix B4: Preliminary Results: Labour Productivity by Sector, 2019





# Appendix C1: CSO's Structural Business Statistics (SBS) 2020



CSO Productivity Statistics 'Foreign' GVA in 2020 (narrow band of sectors): €186bn

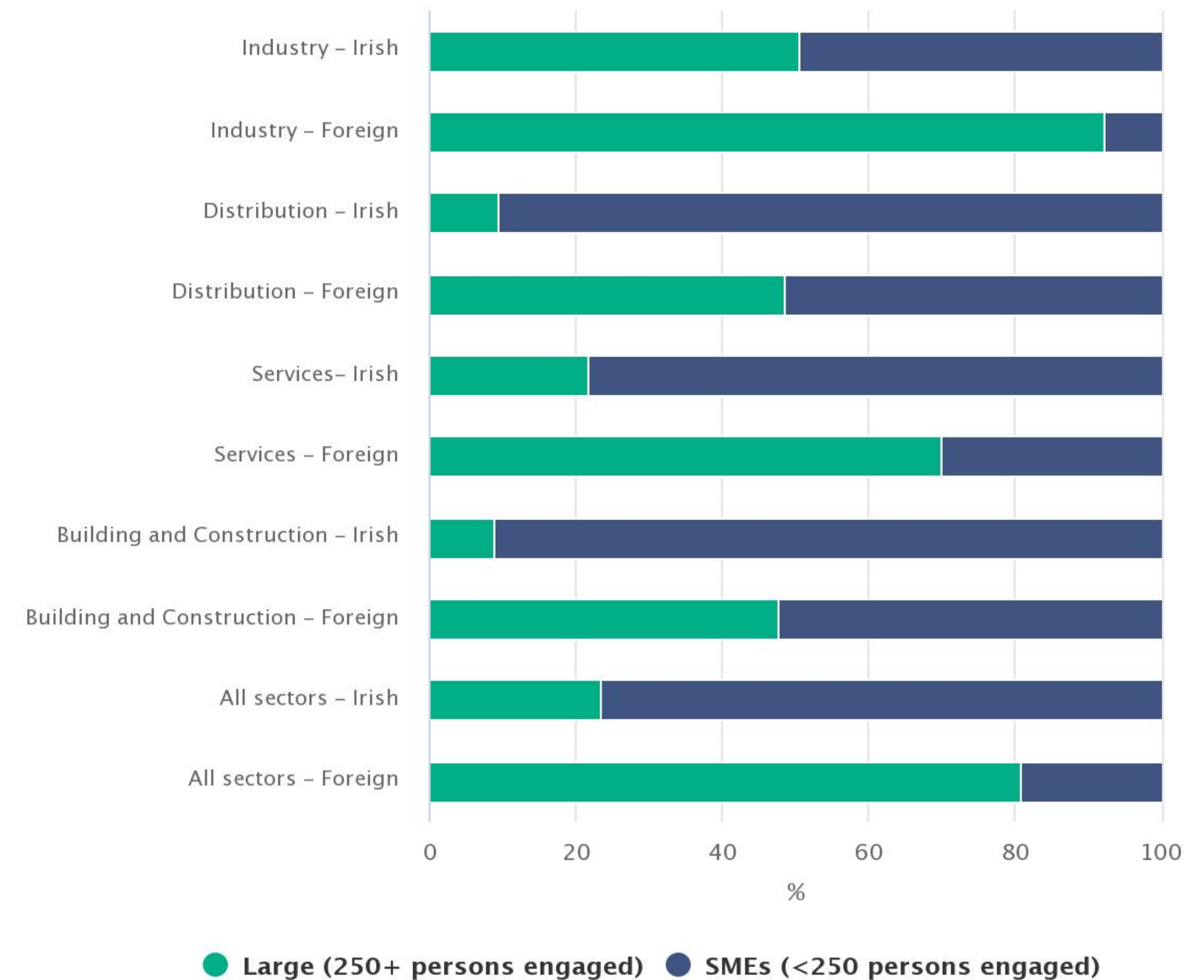
SBS 'Foreign' GVA\* in 2020: €200bn (73% of Total GVA, up from 69% in 2019)

- Industry
- Distribution
- Services
- Building & Construction

Difficult to isolate purely non-exporting firms from CSO Productivity Statistics

\*GVA for SBS is at factor cost.

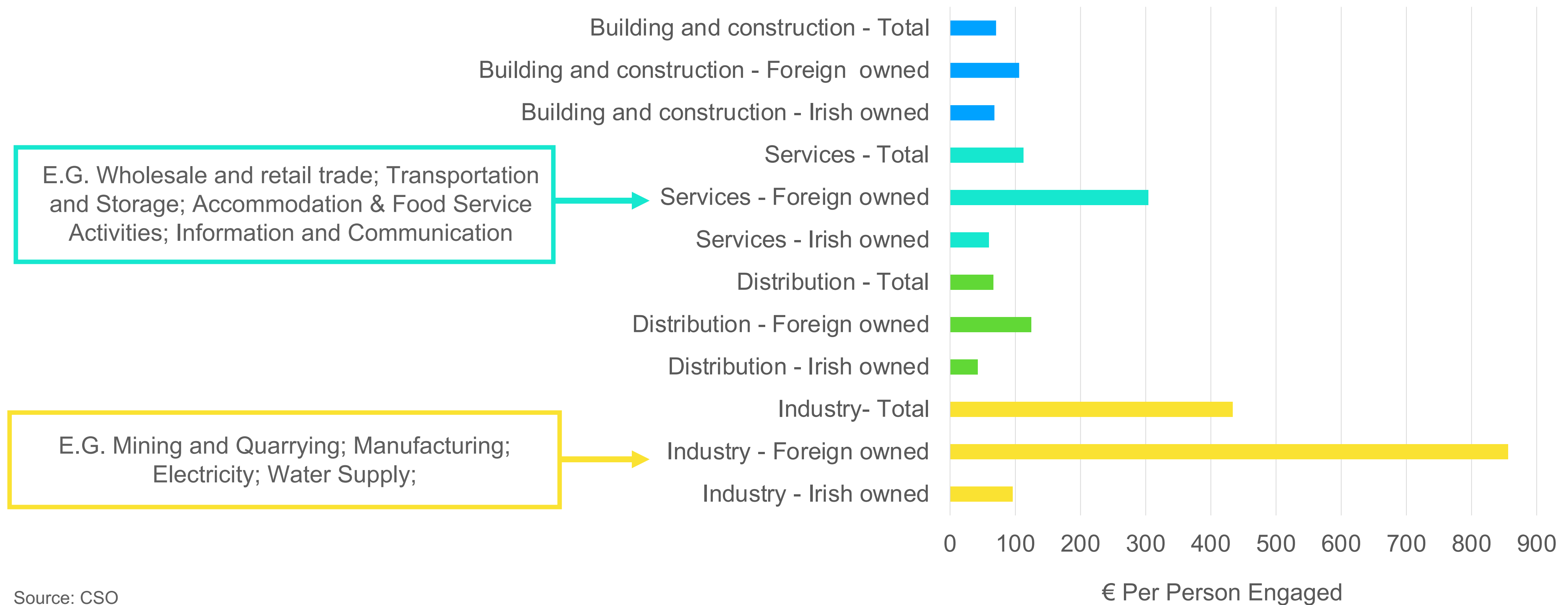
Figure 15: Breakdown of Gross Value Added by sector, nationality of ownership and size class, 2019



# Appendix C2: Structural Business Statistics 2019: Labour Productivity



SBS 2019: Labour Productivity



Source: CSO

NOTE: The classification is determined by the nationality of the owners of 50 per cent or more of the share capital.

# Appendix D: Preliminary Results: COE and GOS



What is driving the divergence in GVA in CSO and ABSEI?

— Compensation of Employees (COE) vs Gross Operating Surplus (GOS) or profit

Both CSO and ABSEI show increase in GOS for 'Foreign' **but** rate of growth has been increasing faster in CSO data

- CSO +505%
- ABSEI +154%

For CSO data, profit now accounts for c.90% of GVA for the foreign sector (compared to c.50% in the rest of the economy)

This is a key determinant in the greater divergence in CSO's Labour Productivity 'foreign' data, however further analysis of estimates is required

