



INCOME-BASED TAX INCENTIVES FOR R&D AND INNOVATION – AN INTEGRATED VIEW

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Delivering new insights on income-based tax incentives for R&D and innovation (IBTIs)

OECD KNOWINTAX project (now IPTAX) launched by CTP-STI in 2020, drawing on FHTP reviews and contributions of OECD R&D tax incentives network (NESTI, WP2 and FHTP delegates) to **three surveys**

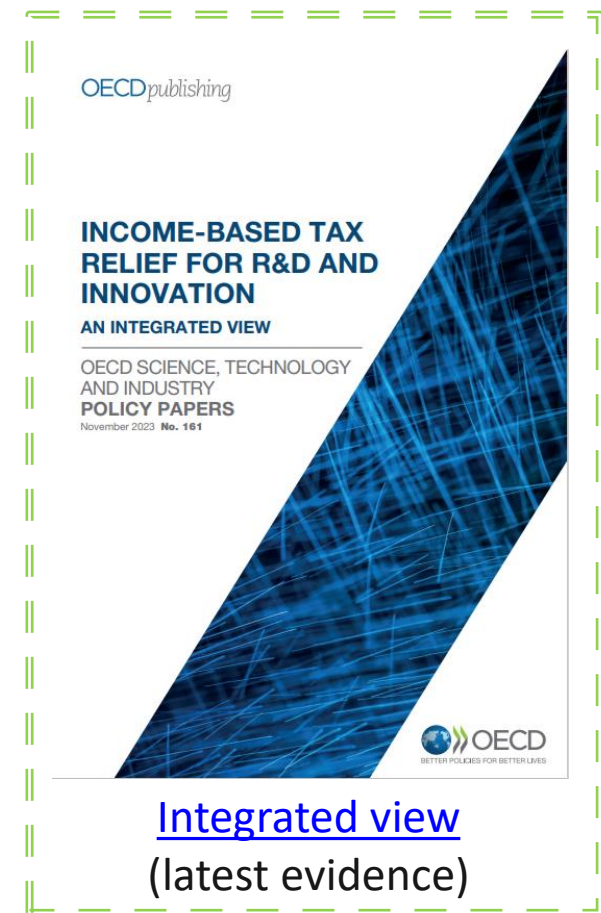


[Design](#)

[Cost and uptake](#)

[Effective tax rates](#)

[Use and design changes](#)

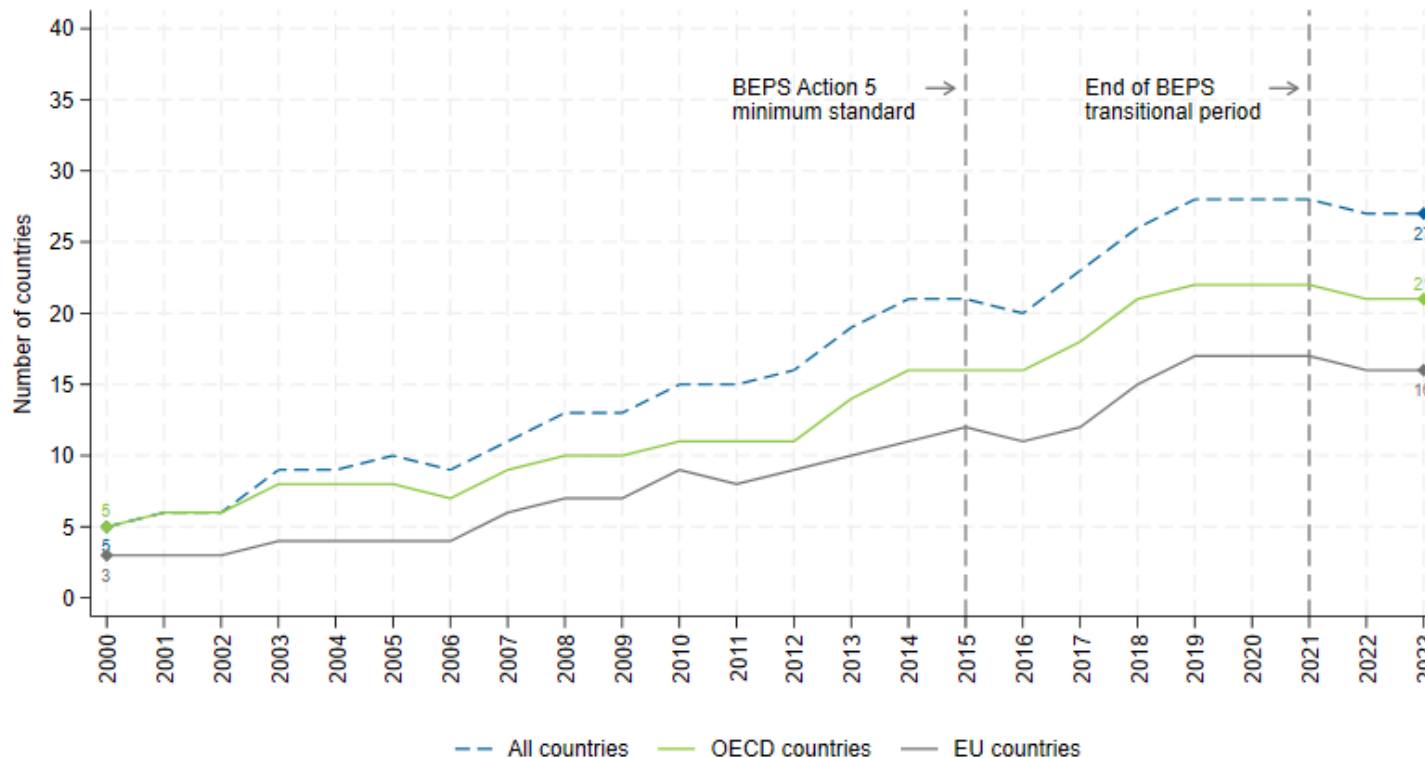


[Integrated view](#)
(latest evidence)



Income-based tax incentives for R&D and innovation have expanded over time

Number of countries offering IBTIs
Central and subnational level

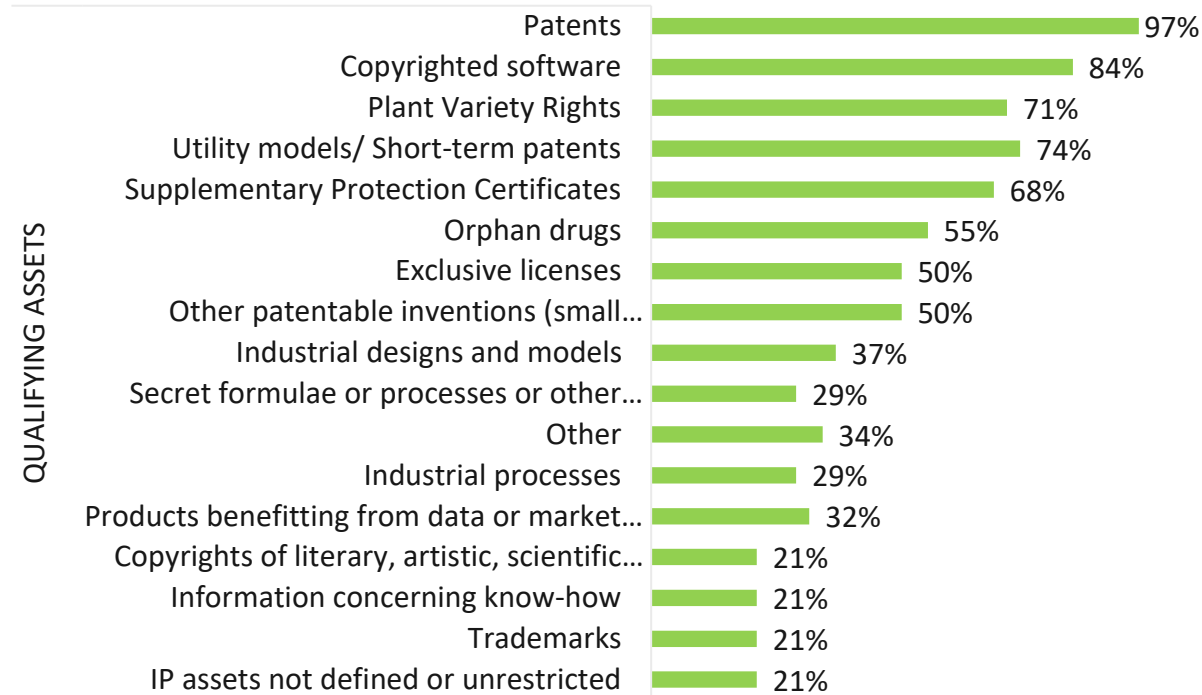


- **Different goals:** promoting R&D and innovation, the commercialisation of IP, and avoiding IP relocation
- **14 out of 16 EU countries** (19 out of 21 OECD countries) offering IBTIs **also offer expenditure-based tax incentives (XBTI)**



The design of IBTIs varies across jurisdictions and matters for their generosity

Qualifying IP assets (% of regimes), 2022



Qualifying IP income (% of regimes), 2022

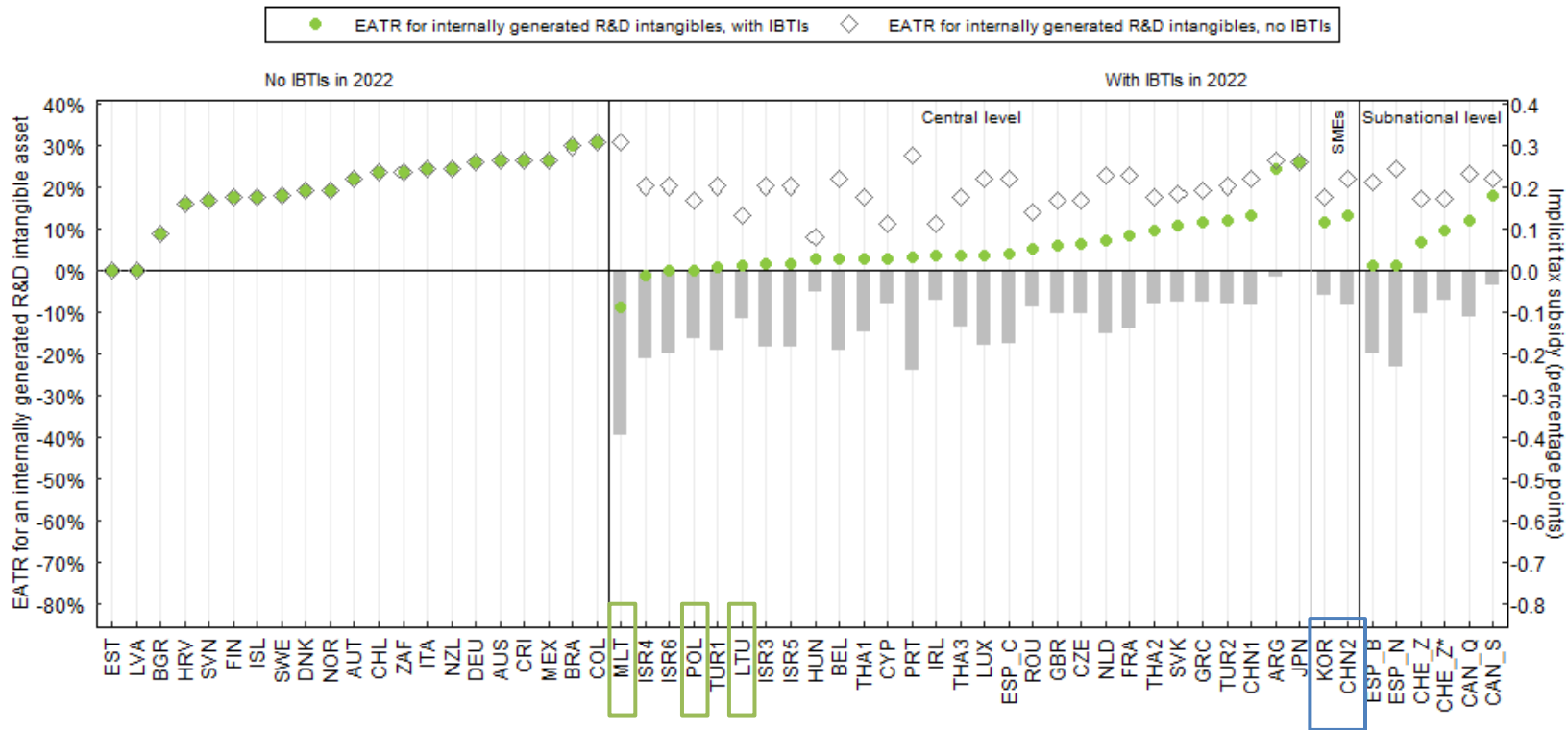


- They mostly target formally protected assets (e.g. patents), with some exceptions for small taxpayers
- They support all forms of commercialisation but also IP protection
- The calculation of tax benefits varies across countries – tax base effects



IBTIs can deliver substantive tax benefits

Effective Average Tax Rates (EATRs) for internally generated R&D intangibles, 2022

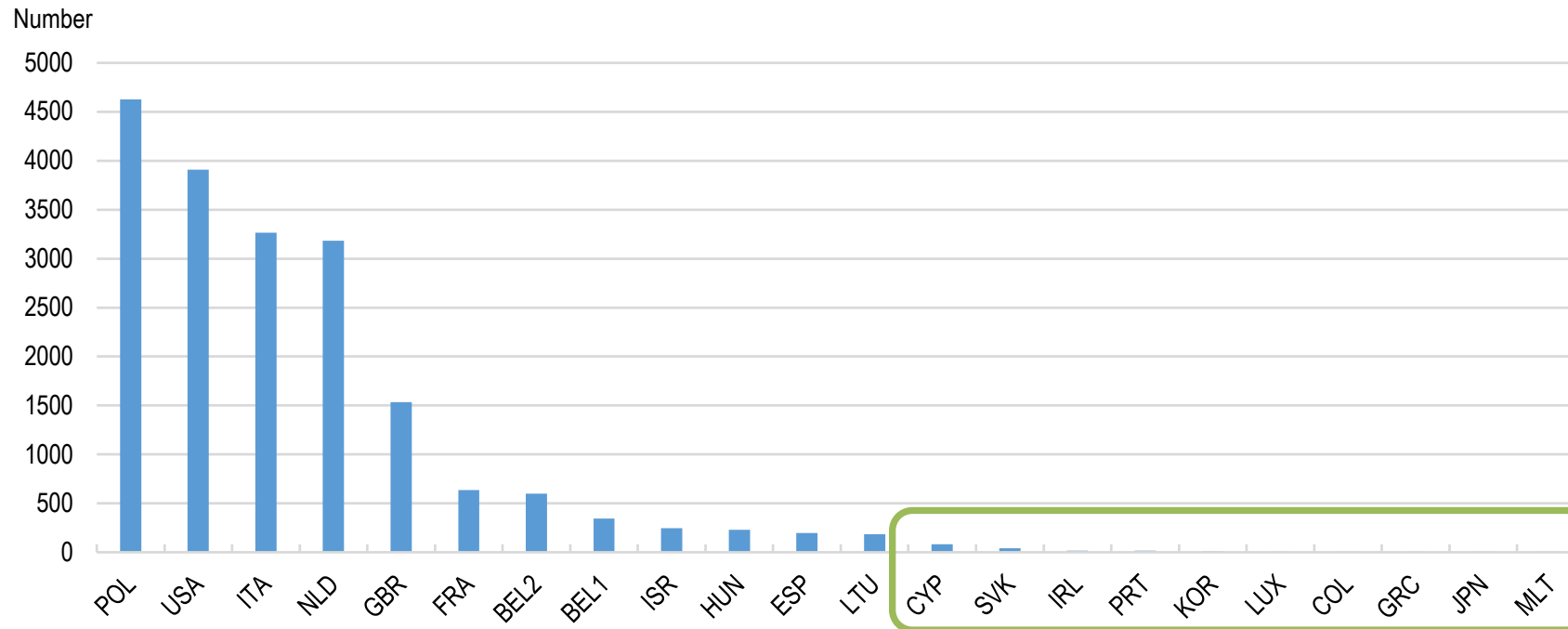


- IBTIs reduce EATRs by 66% to average 6% in 2022
- Rarely targeted to **SMEs**, but SMEs can in some cases access relief for a wider set of assets
- Accounting for **expenditure-based tax incentives** may significantly alter the picture



The uptake of income-based tax relief by firms varies across jurisdictions

Number of income-based tax relief beneficiaries, 2020 (or closest)



Note 1: Applicants: COL; Claimants: GBR, IRL, USA; Deduction for patent income (BEL1) and innovation income (BEL2). Indicators are preliminary and subject to change. Data coverage is partial.

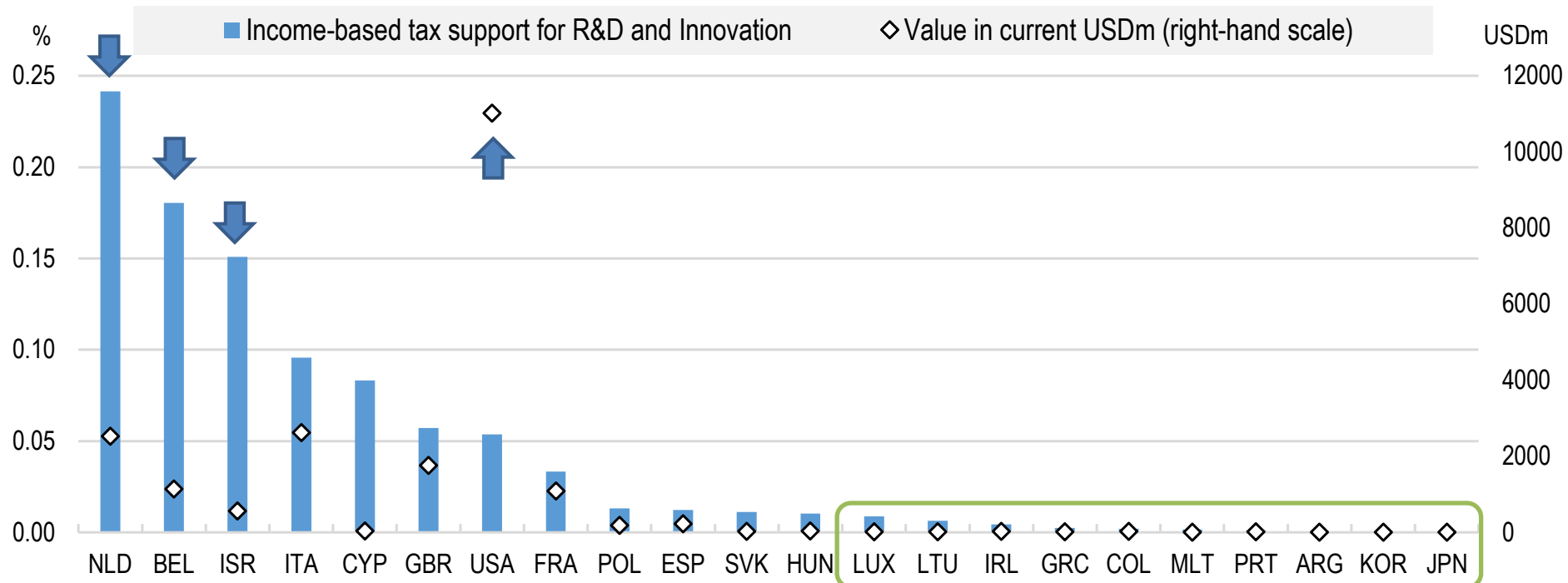
- **Tax benefits tend to accrue to a subsample of the firm population (<100 firms) in 10 out of 21 countries.** Poland (~4600), the United States (~3600) and Italy (~3260) reported the most recipients.
- **SMEs (not shown here) represent the majority of recipients ($\geq 80\%$ in GBR, NLD, LTU, HUN, ISR)**



Differences in uptake and generosity imply differences in forgone revenues

Estimates of forgone tax revenue, 2020 (or closest)

As a percentage of GDP, current USD million (right-hand scale)



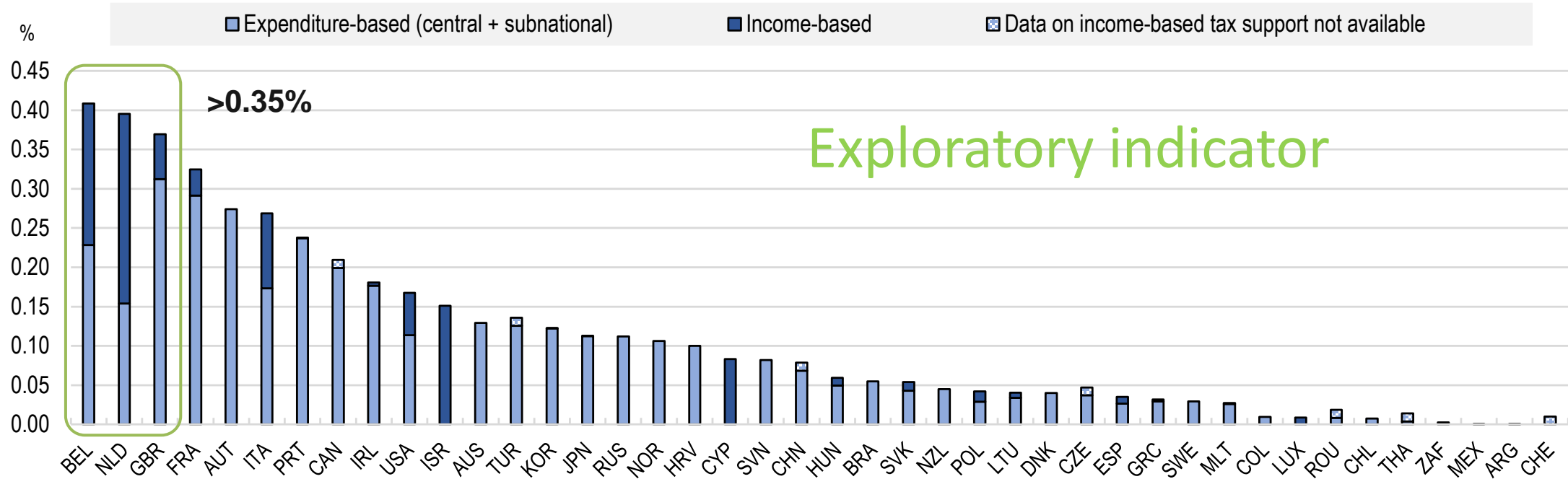
Note: Indicators are preliminary and subject to change. Data coverage is partial.

- **Tax support appears modest in 10 of the 22 jurisdictions covered (<0.01% GDP).** As % GDP, it is largest in the Netherlands, Belgium and Israel, and in absolute terms (USDm) in the United States.
- Distribution of tax benefits (not shown here) tilted towards large firms ($\geq 90\%$ in GBR, ITA, LTU, NLD)



Visible uplift in the amount of tax support for R&D&I but role of income-based incentives varies strongly

Expenditure- and income-based tax relief for R&D and innovation (% GDP), 2020 (closest)



Note: Indicators are preliminary and subject to change. Data coverage is partial.

- Among countries that offer R&D tax incentives of either type, the total amount of tax support for R&D innovation as % of GDP ranges from 0.01% (e.g. CHL, COL, HRV, LUX) to more than 0.35% (BEL, NLD, GBR)
- Among countries that offer tax incentives, the share of income-based in total tax relief for R&D&I varies from close to 0% (JPN, PRT, KOR) to 40% in BEL, 60% in NLD and 100% in ISR, CYP and LUX.



Concluding remarks

- **First MABIS2-IPTAX outputs**
 - **First time release of indicator** on [effective tax rates \(ETRs\) for R&D intangibles](#) for 2023 in CTS database in July 2024
 - Planned, **first time release of indicator on foregone tax revenue** for 2021 (or closest) as part of [OECD R&D tax incentives database](#) in Q4 2024
 - Planned release of **Highlights from 2024 IPTAX survey** (web blog)
- **Future work**
 - 2025 IPTAX survey
 - Analytical report on innovation tax incentives with main results from data collection and insights on implications and impact of global tax reform (~Q4 2025)
 - Integration of income-based tax incentives for R&D&I in OECD INNOTAX portal
- **Publications:** [OECD R&D tax incentives website](#) and [INNOTAX portal](#)



THANK YOU!

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