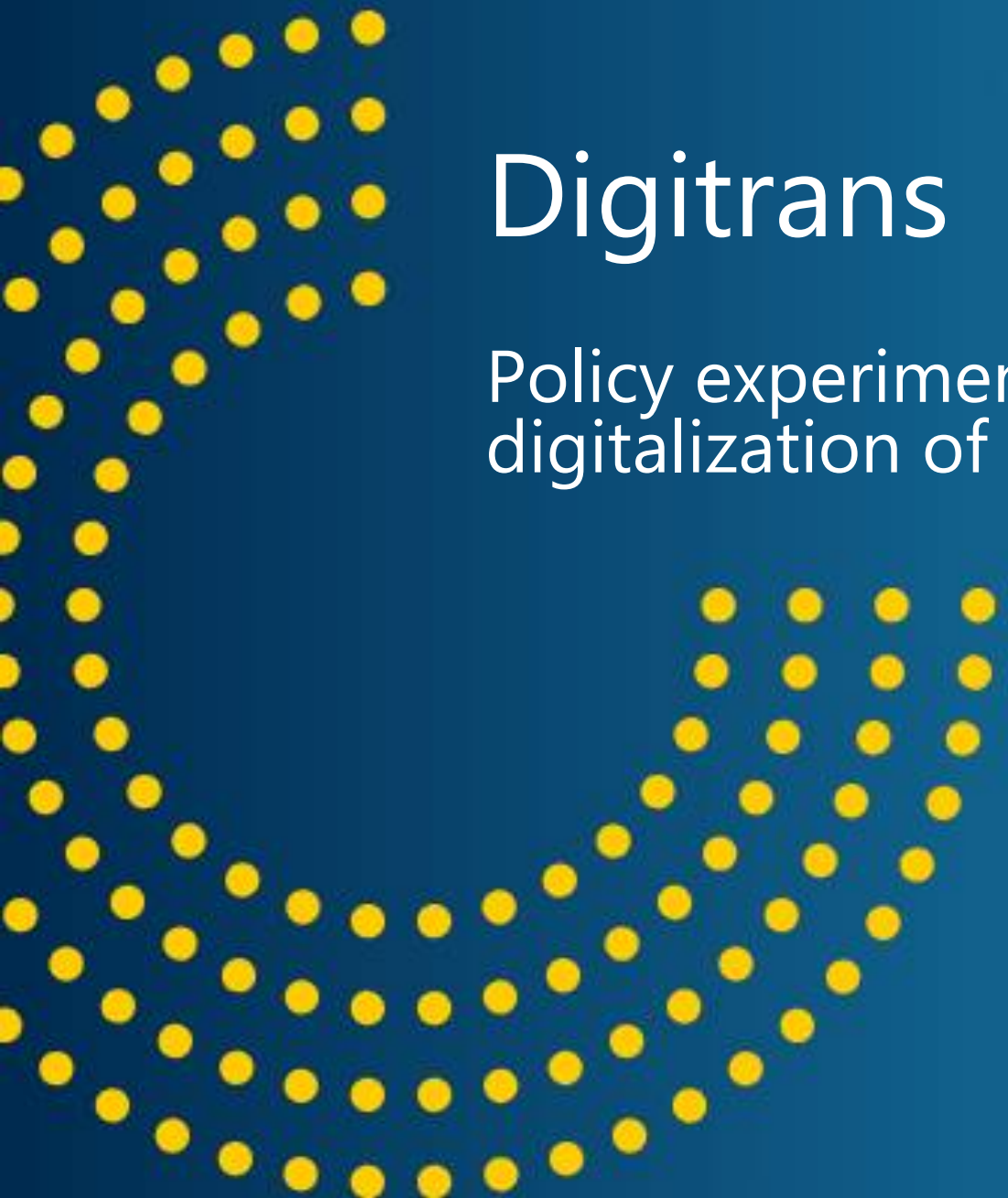
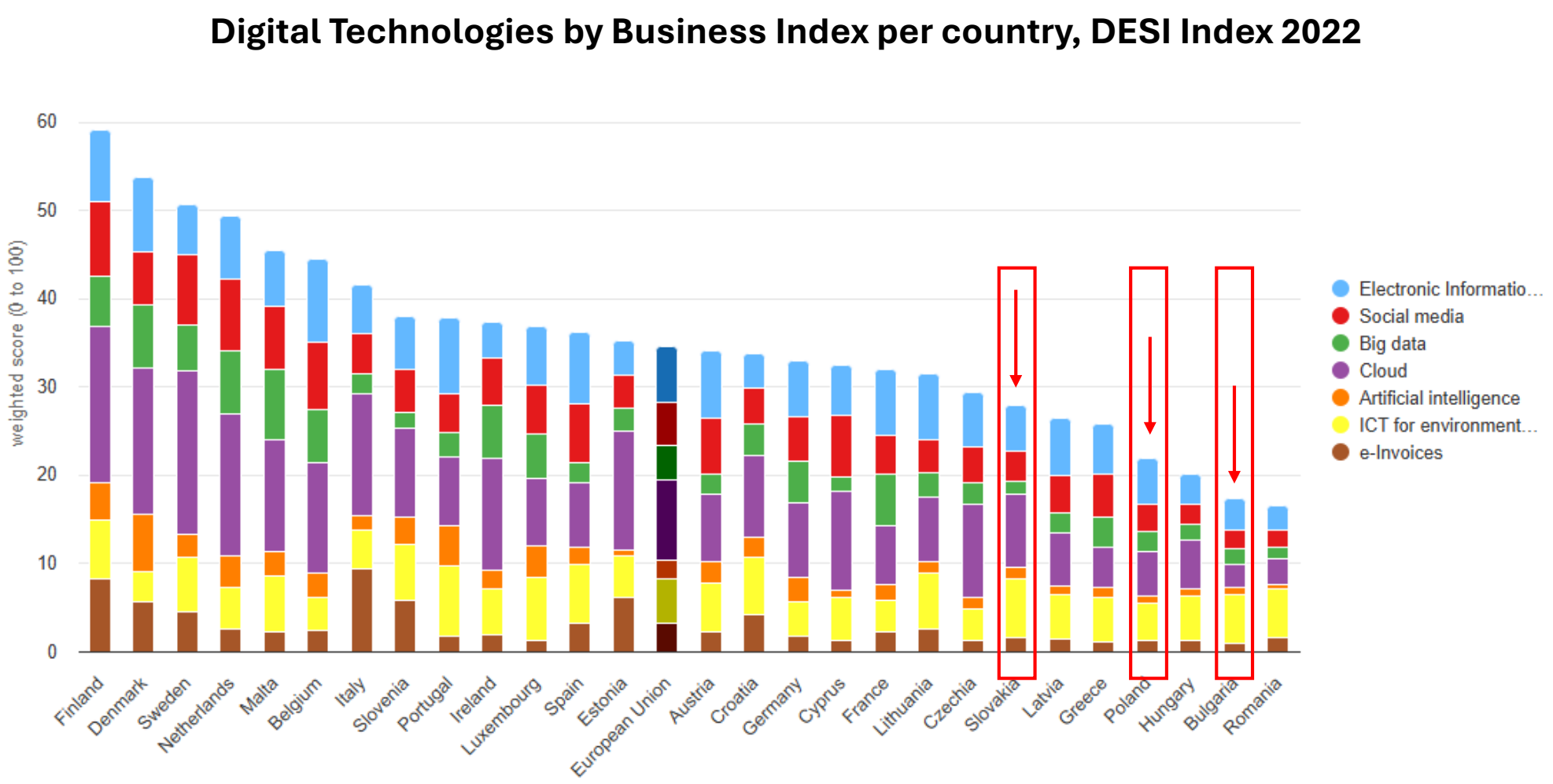
Digitrans

Policy experiment to learn what works in supporting digitalization of MSMEs in Europe

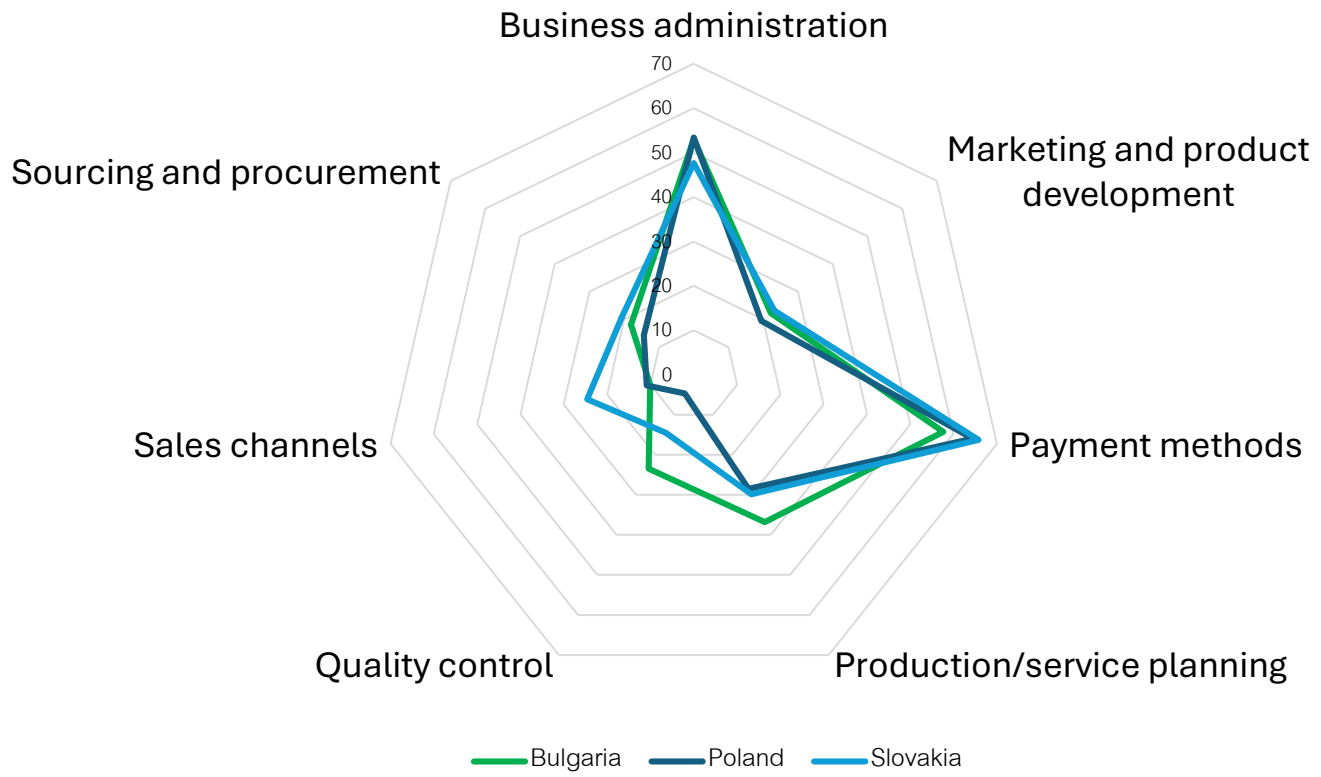


Digital technology adoption is weak among firms in Central and Eastern Europe



Gaps in usage of digital technologies are common in MSMEs among most business functions

Share of firms with common usage of a digital technologies per business function



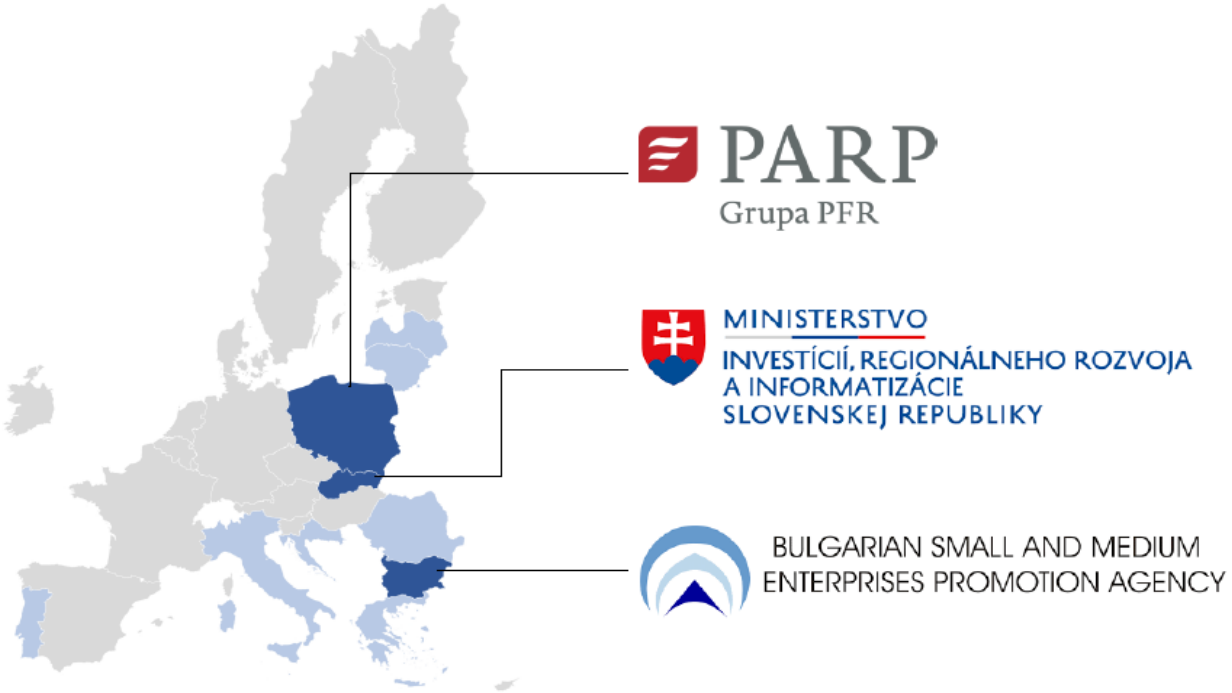
Source: Digitrans, WB Technology Adoption Surveys

Public support programs for MSME digitalization focused on financial subsidies

- Typically, half of **digitalization funds in EU countries concentrated in single instrument**
- Programs for SME digitalization lack support for complementary capabilities. Programs **rely on firms to choose digital tools upfront**, despite knowledge gaps
- European Digital Innovation Hubs (EDIHs) **do not sufficiently support foundational and intermediate firms**, focusing more on technology creation than adoption
- Existing programs **do not incentivize transition to the most productive technologies**, and lack effective safeguards to prevent investments in outdated digital tools

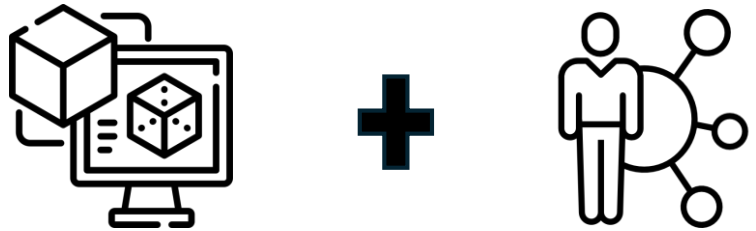
Source: Digitrans mapping of instruments in Bulgaria, Poland and Slovakia

Digitrans is a pilot program in 3 countries in Europe aiming to address gaps in digitalization



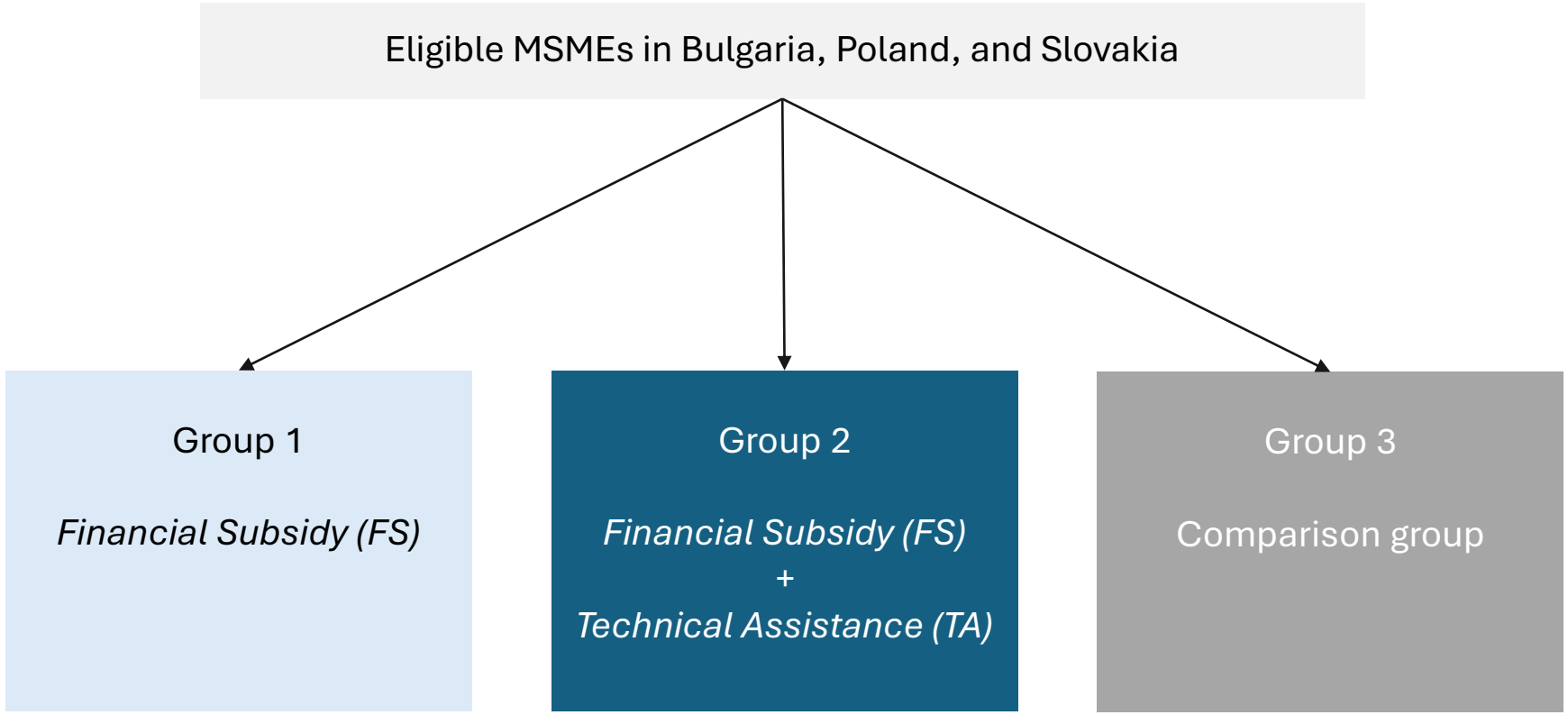
Financial support

Complementary capabilities



Does technological/managerial advisory complement a financial voucher of Euro 2,000 for adoption of digital tools for MSMEs?

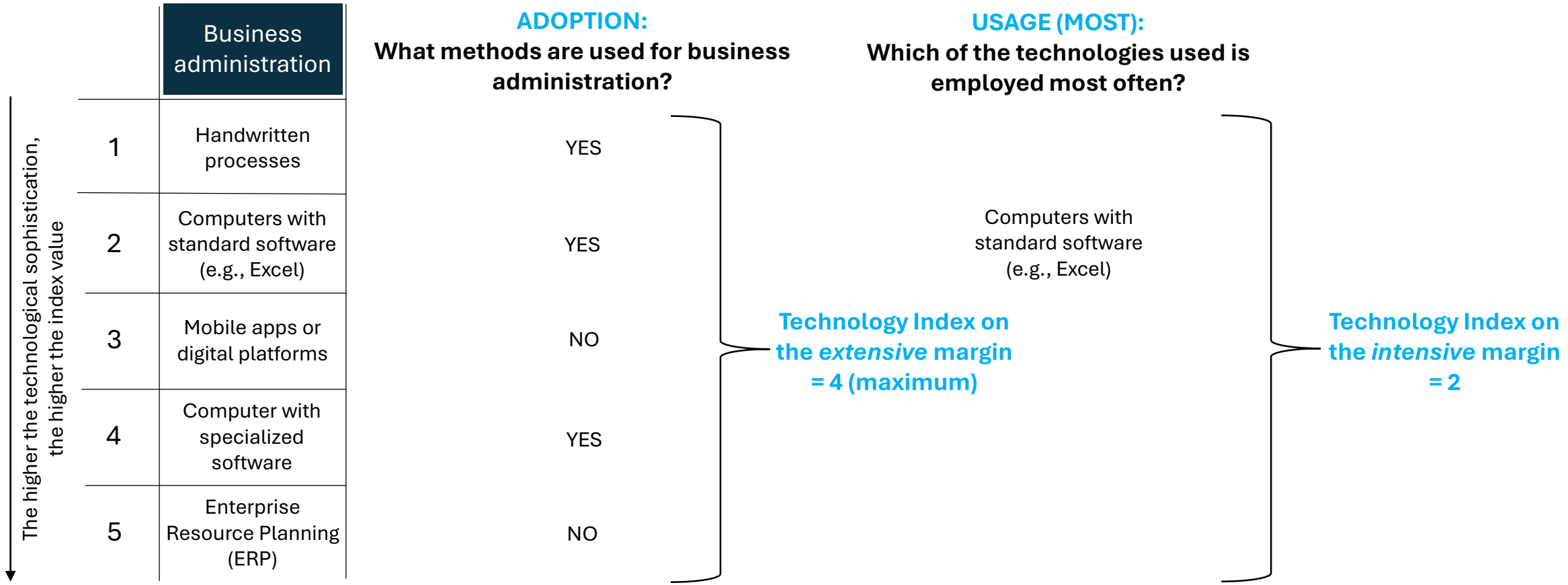
Experiment design allows to compare two types of interventions and a comparison group



x3

In Bulgaria, Poland, and Slovakia with over 200 firms in each

Collected data on all groups pre and post interventions

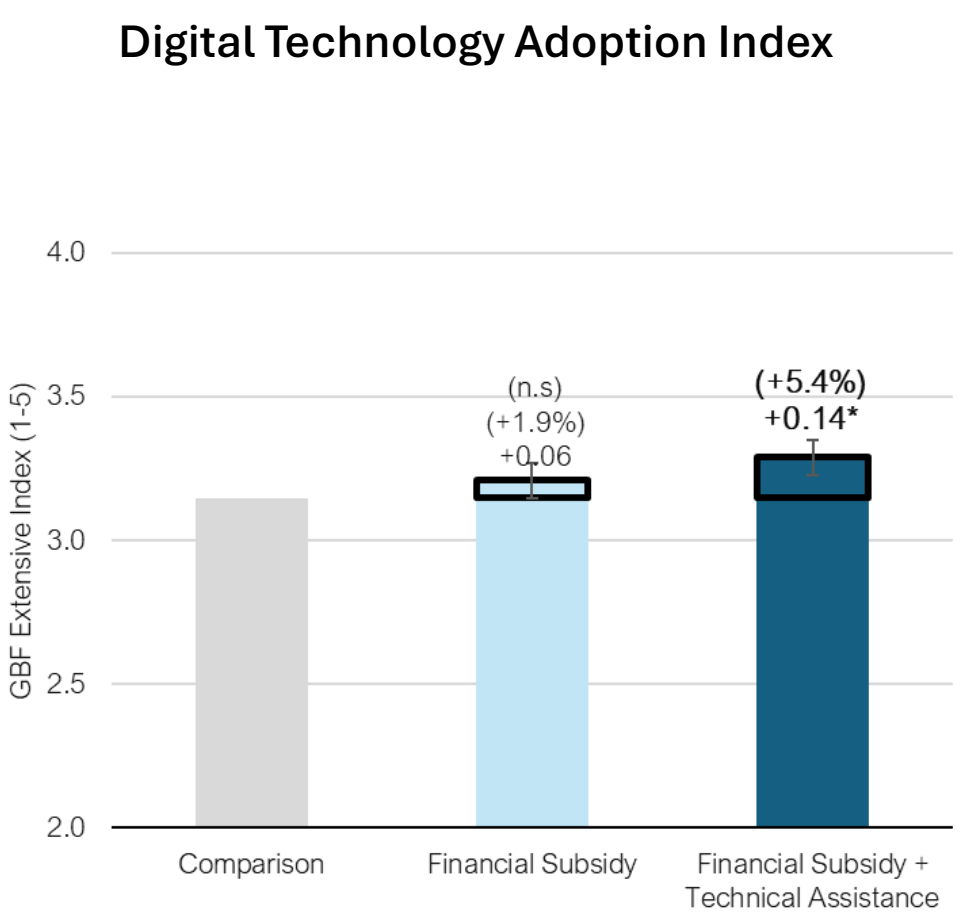


We collect information on adoption and usage across multiple general business functions

The higher the technological sophistication, the higher the index value

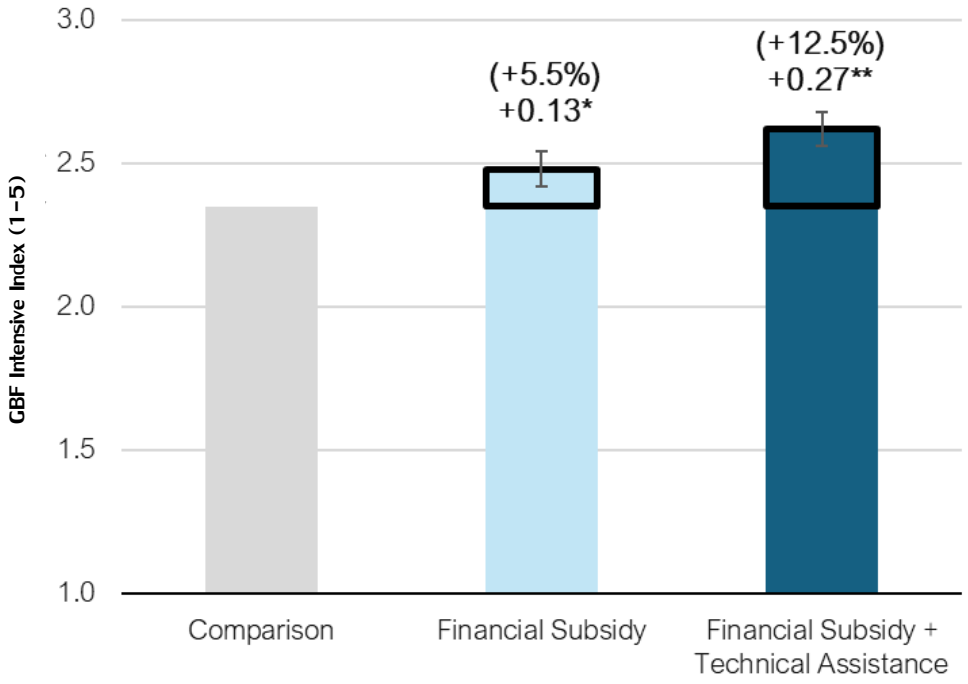
	Business administration	Production planning	Sourcing and procurement	Marketing and product develop.	Sales	Payment methods	Quality control	Internal Communication
1	Handwritten processes	Handwritten processes	Manual search of suppliers, without centralized database	Informal chat (face-to-face)	At the establishment	Cash	Manual, visual or written processes without the support of digital technologies	Face-to-face meetings, phone calls, memos
					Direct sales by phone or email	Bank wire		
2	Computers with standard software (e.g., Excel)	Computers with standard software (e.g., Excel)	Computers with standard software (e.g., Excel)	Online chat	Sales through social media	Credit or debit card	Manual, visual or written processes with the support of digital technologies	Emails
3	Mobile apps or digital platforms	Mobile apps or digital platforms	Mobile apps or digital platforms	Structured customer surveys	Online sales via platforms (e.g., eBay)	Online banking		Instant messaging or mobile apps (e.g. WhatsApp)
4	Computer with specialized software	Computer with specialized software	Supplier Relationship Managment (SRM)	Customer Relationship Managment (CRM)	E-commerce	Online through a platform (PayU)	Statistical process control	Collaboration platforms (e.g. Teams or Slack)
5	Enterprise Resource Planning (ERP)	Enterprise Resource Planning (ERP)	SRM Integrated with production planning	Big Data or Artificial Intelligence (AI)	Electronic orders integrated into the supply chain	Virtual or cryptocurrency	Automated systems for inspection	Project mgmt. platforms (e.g. Trello, Asana)

Financial Subsidy (FS) + Technical Assistance (TA) with larger impacts on digital adoption

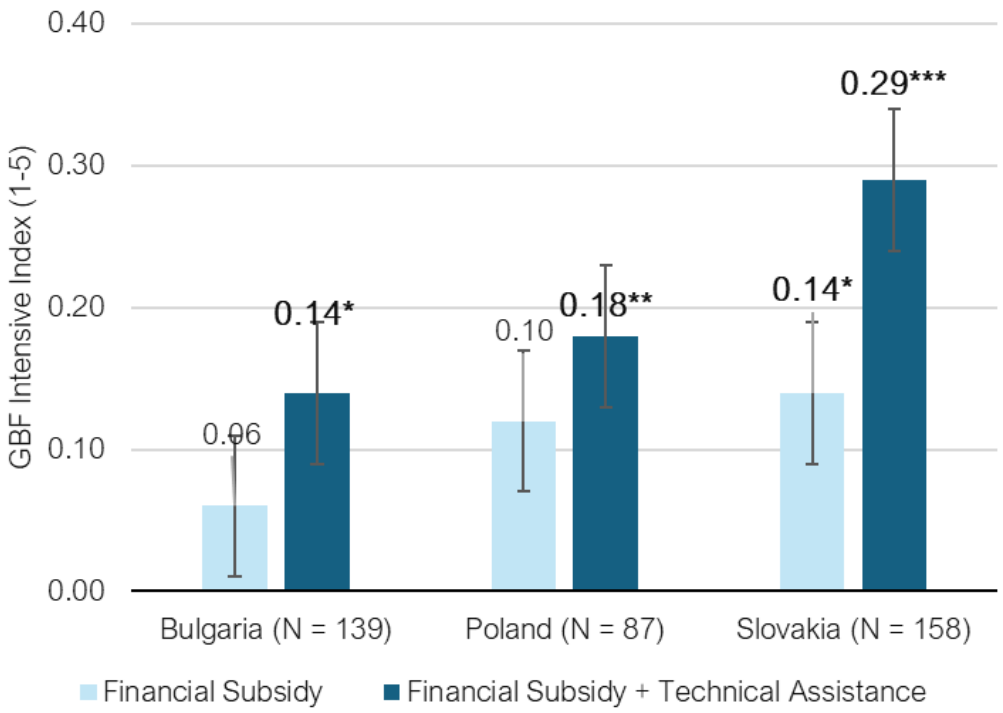


FS+TA group with double impact on usage of digital technologies

Digital Technology Usage Index

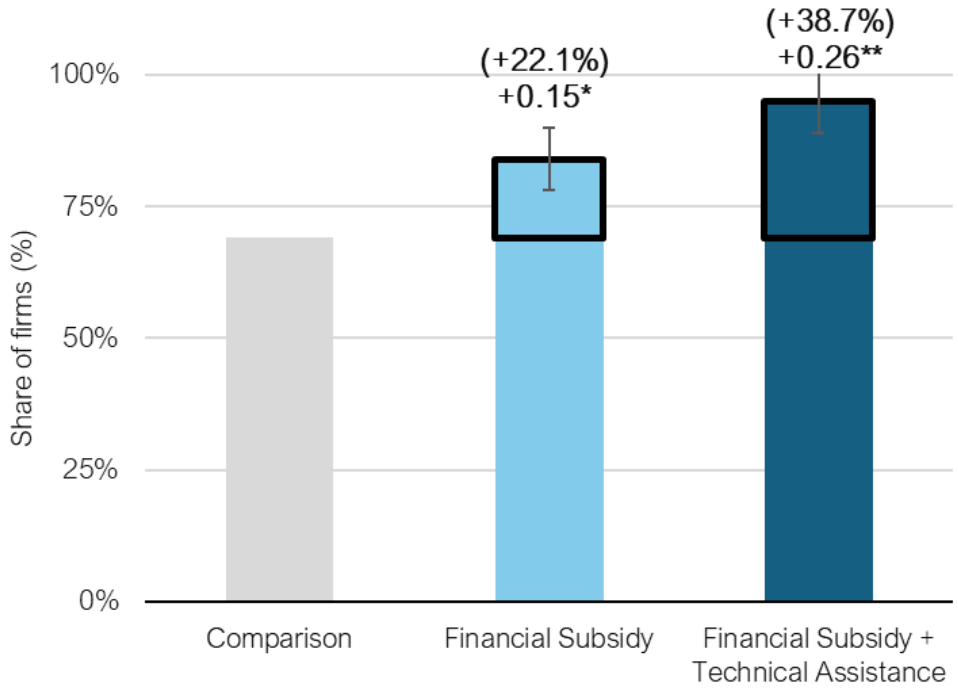


Technology Usage Impact

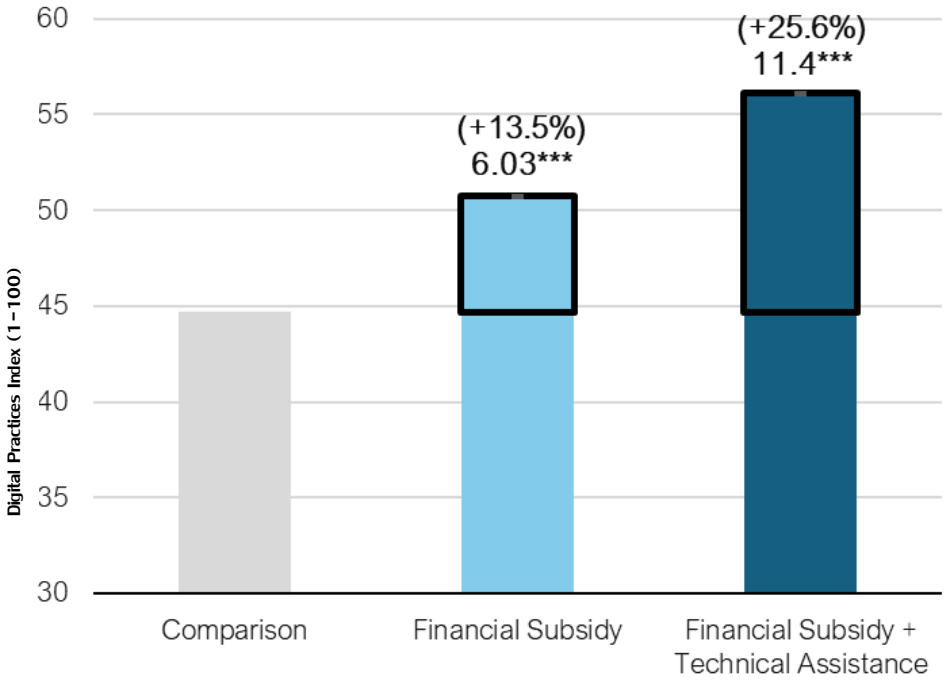


FS+TA with increased usage of AI and practices in digital tools

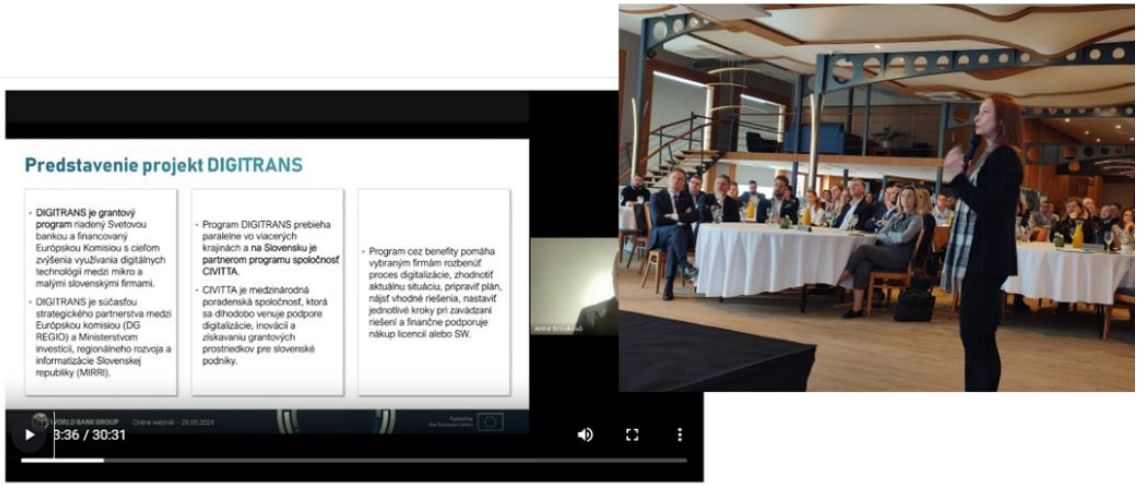
AI Tool Usage
(among those that adopted)



Digital Practices Index



Conclusion



(small) Vouchers have modest impacts in increasing adoption and usage of digital technologies among MSMEs in Central and Eastern Europe

Adding complementary technology advisory and managerial capabilities doubles impacts

Randomized experiment (RCT) allows to rigorously assess the impacts of these alternatives

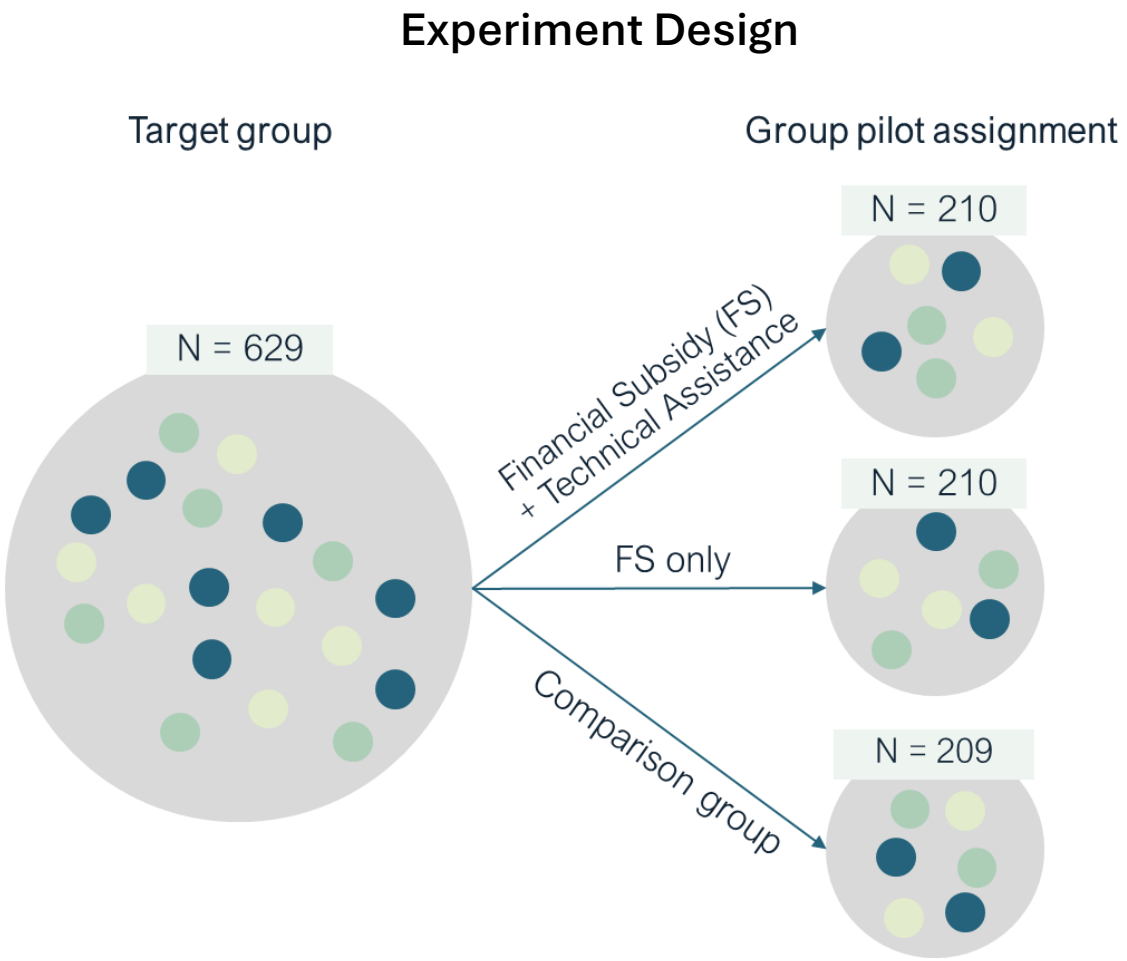

European
Commission


WORLD BANK GROUP

Sample of over 200 firms in each country

	Bulgaria	Poland	Slovakia
Applications received	568	454	593
Eligible Firms	307	261	303
Interviews Completed	235	217	225
Firms Assigned	216	204	209

Randomized experiment



Baseline characteristics

Most firms are in operation at least **10 years.**

Over 60% of firms across all countries primarily use **Excel or similar tools.**

Under 15% have adopted specialized business software in any business function.

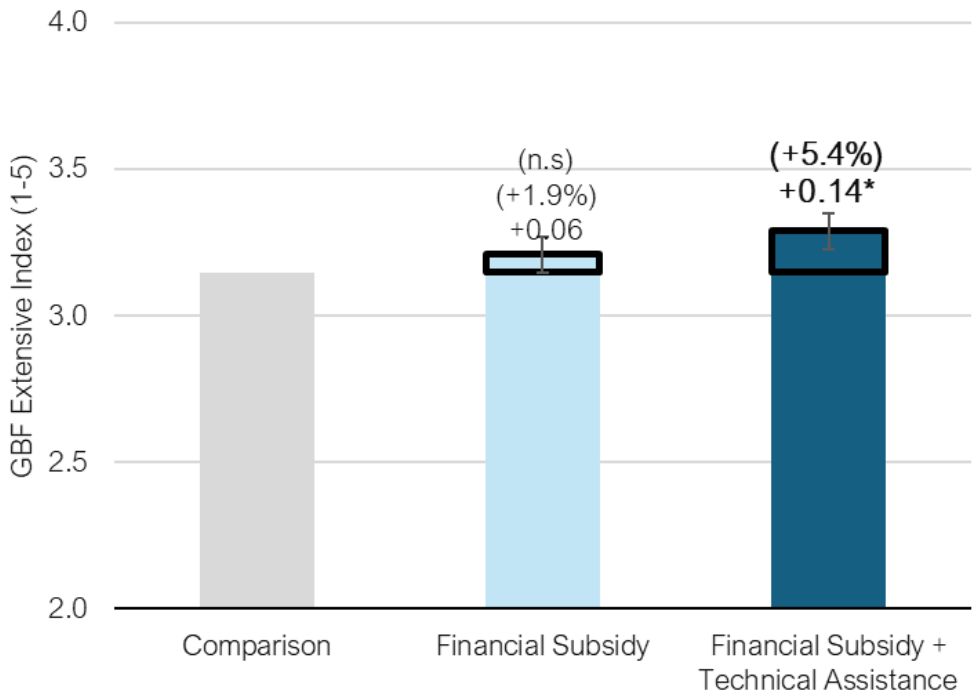
Fewer than 1 in 10 companies use AI capabilities in everyday business.

Less than 20% of firms test changes through prototypes or small-scale trials before full implementation.

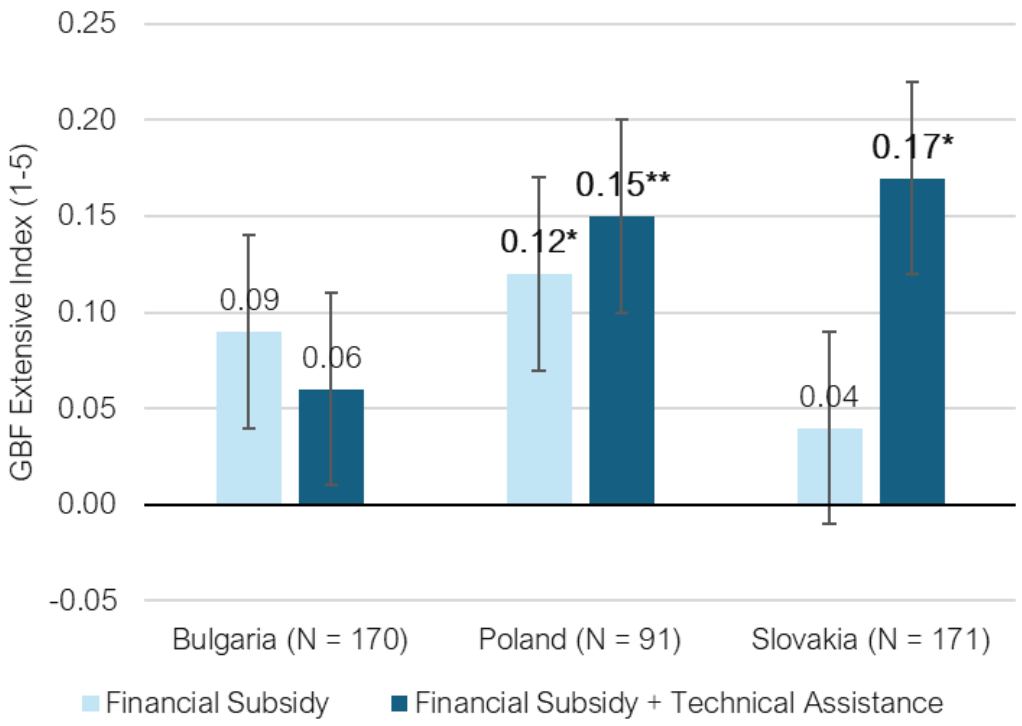
7% to 12% received public support in the past 36 months.

Financial Subsidy (FS) + Technical Assistance (TA) with larger impacts on digital adoption

Digital Technology Adoption Index

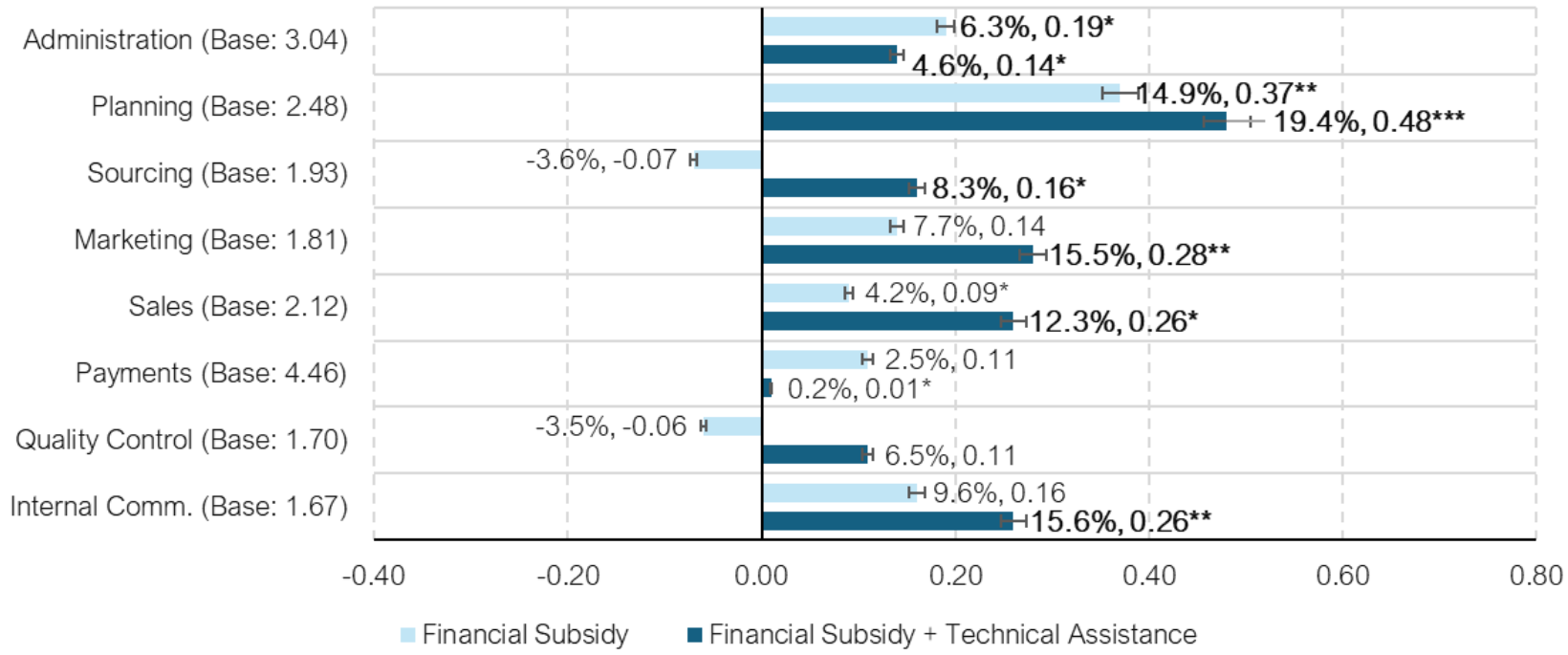


Technology Adoption Impact



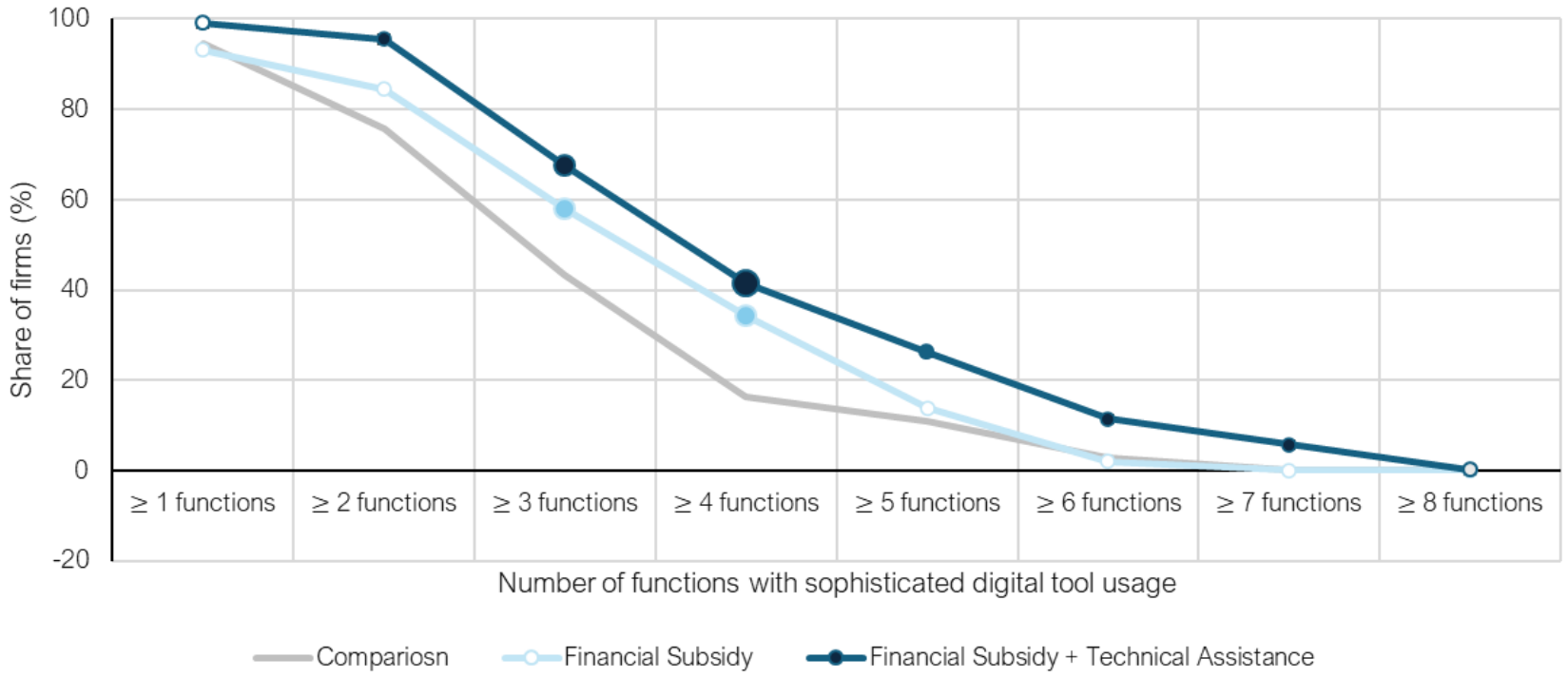
Technical Assistance Drives Higher Uptake of Sophisticated Digital Tools

Impacts on usage of digital tools by business function



About 70% of FS+TA firms use sophisticated digital tools in three or more business functions compared to 57% of FS-only firms

Share of Firms Using Sophisticated Digital Tools Across Business Functions



Large impacts on Organizational Change Implementation by Business Function