What is the Impact of Digitalisat Grants for Businesses?

A Cookbook for a Decent Cohesion Funds RCT

Alexandra Avdeenko

European Commission

WORLD BANK GROUP

3 years ago after Berlin (Lisbon...)
Let's do it!

"I optimistically expect that by the end, we will discover together how to invest EU money more efficiently."

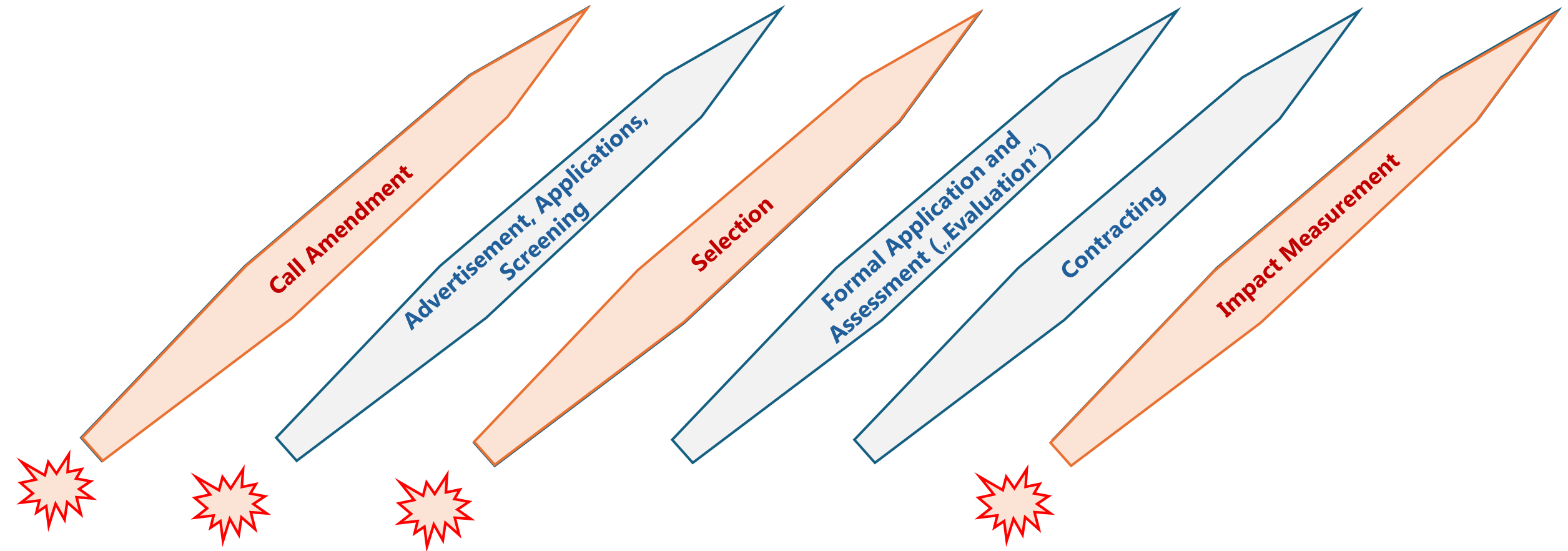*Mr. ASANDEI, General Director of a Regional Managing Authority*

Man Returns To Work After Vacation With Fresh, Reenergized Hatred For Job

Project Cycle ❌ Randomized Controlled Trial

Call Amendment

Advertisement, Applications, Screening

Selection

Formal Application and Assessment („Evaluation")

Contracting

Impact Measurement

Standard, Competitive Program:
For one Moment,
the Agency Changed the Way they Operate

(Well-performing) Firms
self-select into applying
for EU funds

+

Managing authorities select
"good firms"
(based on ranking)

Hard to quantify the added value of a Euro spent on them.
Unclear whether selecting the best generates the highest returns.

(Trying to) Simplify and Automatize Eligibility Pre-Screening and Trying to Support the Outreach

Nimble RCT: Additional information campaigns, **randomly selecting 26 out of 46 cities for road-trips.**

A World Bank consultant, working with mayors, explained the call and helped firms complete the pre-assessment (baseline) survey.

Results showed 110 firms applied from road-trip cities versus 71 from non-road-trip ones, a **54.9% increase.**

Applications came from **smaller firms** (12.6 employees on average, compared to 19.6 in comparison cities).

It's a Non-Competitive Call for Learning Purposes

RP North-East 2021-2027 (Euro 25,000,000 ERDF).

Program contribution per funded project: min Euro 15,000 - max Euro 100,000

The call for proposals was defined as non-competitive and framed as a pilot to generate learning.

Mecanism de selecție
- Necompetitiv, cu termen limită de depunere a proiectelor

Selection mechanism
- Non-competitive, with a deadline for submitting projects
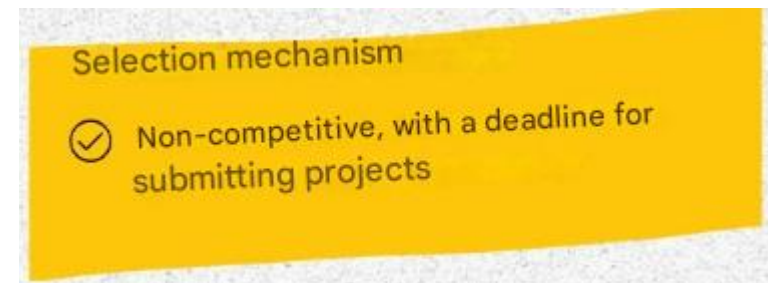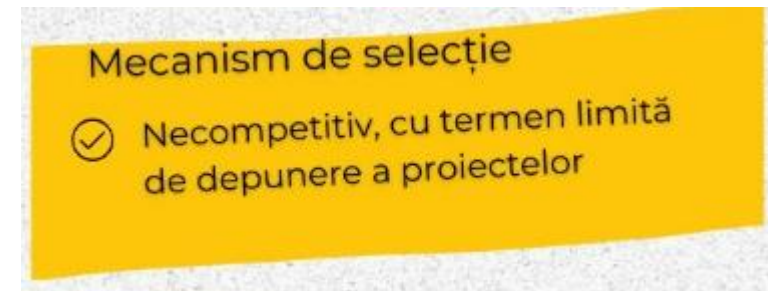
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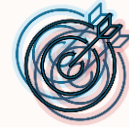
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Figure 4.3: Contract Signatures by Calendar Month

Very Short-Term Impacts, …
Right from the Kitchen…

Randomly selected group has higher expenditures: +109% on equipment & machinery, +167% on software, and NO investments into training of employees on it
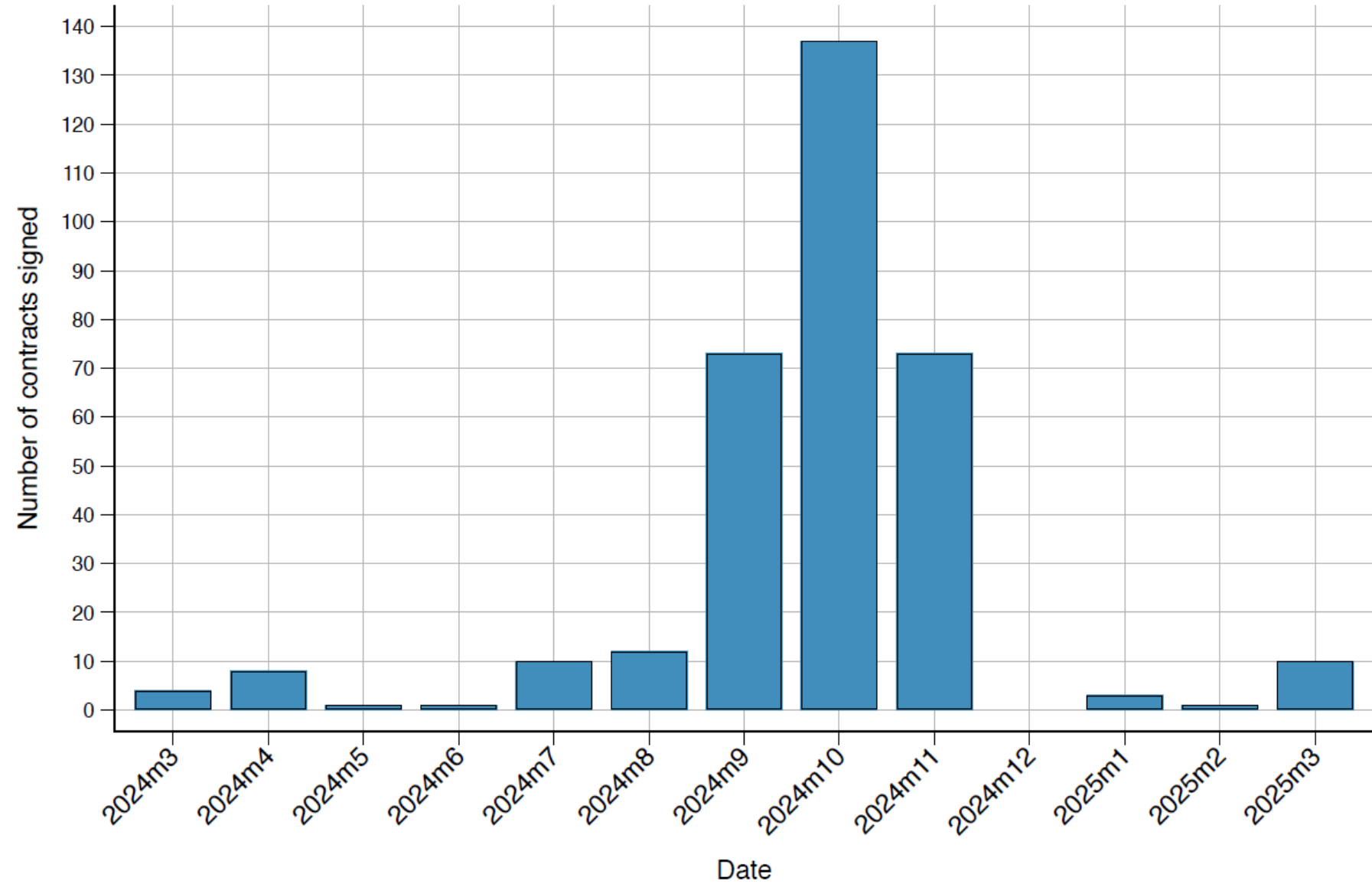
Table 5.1: Expenditures in Equipment, Software, Development and Training

	(1) Equip./Machin.	(2) Software	(3) Development	(4) Training	(5) Total
Treatment	53673.911***	8695.628***	656.485*	26.712	71198.949***
	(7357.204)	(1004.571)	(331.005)	(19.125)	(10452.890)
Control Mean	49157.654	5206.735	578.835	44.475	70528.989
Std. Dev.	1.28e+05	16937.035	2652.042	203.203	1.82e+05
Treat. Eff.: p-val.	0.000	0.000	0.095	0.212	0.000
Effect Size: percent	109.187	167.007	113.415	60.061	100.950
Effect Size: Std. Dev.	0.419	0.513	0.248	0.131	0.391
Sample Size	622	622	623	624	624
R^2	0.090	0.066	0.046	0.037	0.083

Note: Estimated amount of investment in the last six months expressed in RON and winsorized at the 5th and 95th percentiles. Column (1) new or second-hand equipment or machines; column (2) licence for software; column (3) developing, customizing, or significantly modifying equipment, machine, or software; column (4) training employees on the use of equipment, machine, or software. Controls include all stratification variables, seven county dummies, a dummy for small firms, a dummy indicating whether the firm is above the median in the DESI score, and a dummy indicating whether baseline profits were above the median. Industry fixed effects include 22 industries. Standard errors are clustered at the county level. * significant at the 10% level, ** at the 5% level, *** at the 1% level.
Source: Survey data (follow-up Q2 2025) and authors' computations.

1 RON=20 Cent

Do results differ by type of firms?

Absolutely!
The program impacts are higher for firms :

- With previously smaller DESI scores
- Who previously had a website already
- From urban areas (especially Iasi)
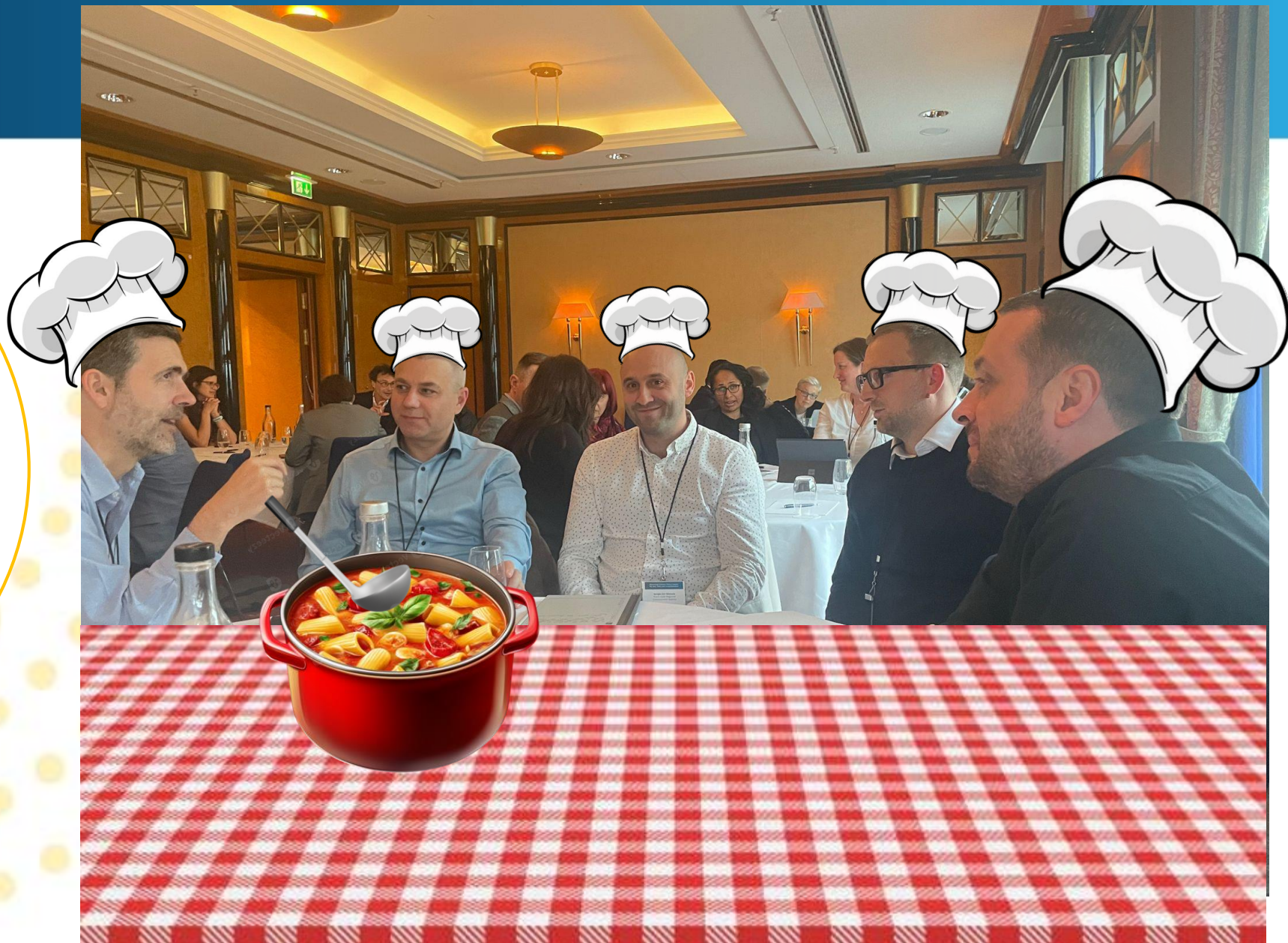- For Firms from trade (no effects for Manufacturing)

Randomly selected group shows higher digital expenditures across business functions: +290% on Business Administration, +118% on Marketing, with little Investments into digital Payment Methods

Table 5.2: Expenditures in Digital Tools for General Business Functions

	(1) Biz. Admin.	(2) Production	(3) Sourcing	(4) Marketing	(5) Sales	(6) Payment	(7) Quality	(8) Total
Treatment	37082.495***	40379.865***	1387.403***	209.423**	3312.230***	214.696	3617.638**	106008.234***
	(7250.219)	(7916.094)	(278.496)	(58.009)	(586.226)	(386.381)	(1318.855)	(19896.135)
Control Mean	12752.276	11473.670	667.023	177.023	1373.552	485.897	962.065	34680.866
Std. Dev.	52589.002	51860.521	3730.268	889.816	6800.970	4626.278	12486.521	1.22e+05
Treat. Eff.: p-val.	0.002	0.002	0.002	0.011	0.001	0.599	0.034	0.002
Effect Size: percent	290.791	351.935	207.999	118.303	241.143	44.185	376.028	305.668
Effect Size: Std. Dev.	0.705	0.779	0.372	0.235	0.487	0.046	0.290	0.868
Sample Size	624	624	623	624	624	623	624	624
R^2	0.076	0.085	0.064	0.068	0.112	0.043	0.140	0.099

Note: Expenditures in digital tools in the last six months are expressed in RON and winsorized at the 5th and 95th percentiles. Investments in business functions related to payments and quality are winsorized at the 1st and 99th percentiles, as the number of firms investing in these areas is limited. General business functions include: in column (1) business administration (finance, accounting, and HR processes); in column (2) production or service operations planning; in column (3) selecting and managing suppliers; in column (4) collecting and analyzing information from customers; in column (5) sales methods; in column (6) payment methods; in column (7) quality control inspection methods. Controls include all stratification variables, seven county dummies, a dummy for small firms, a dummy indicating whether the firm is above the median in the DESI score, and a dummy indicating whether baseline profits were above the median. Industry fixed effects include 22 industries. Standard errors are clustered at the county level. * significant at the 10% level, ** at the 5% level, *** at the 1% level. *Source*: Survey data (follow-up Q2 2025) and authors' computations.
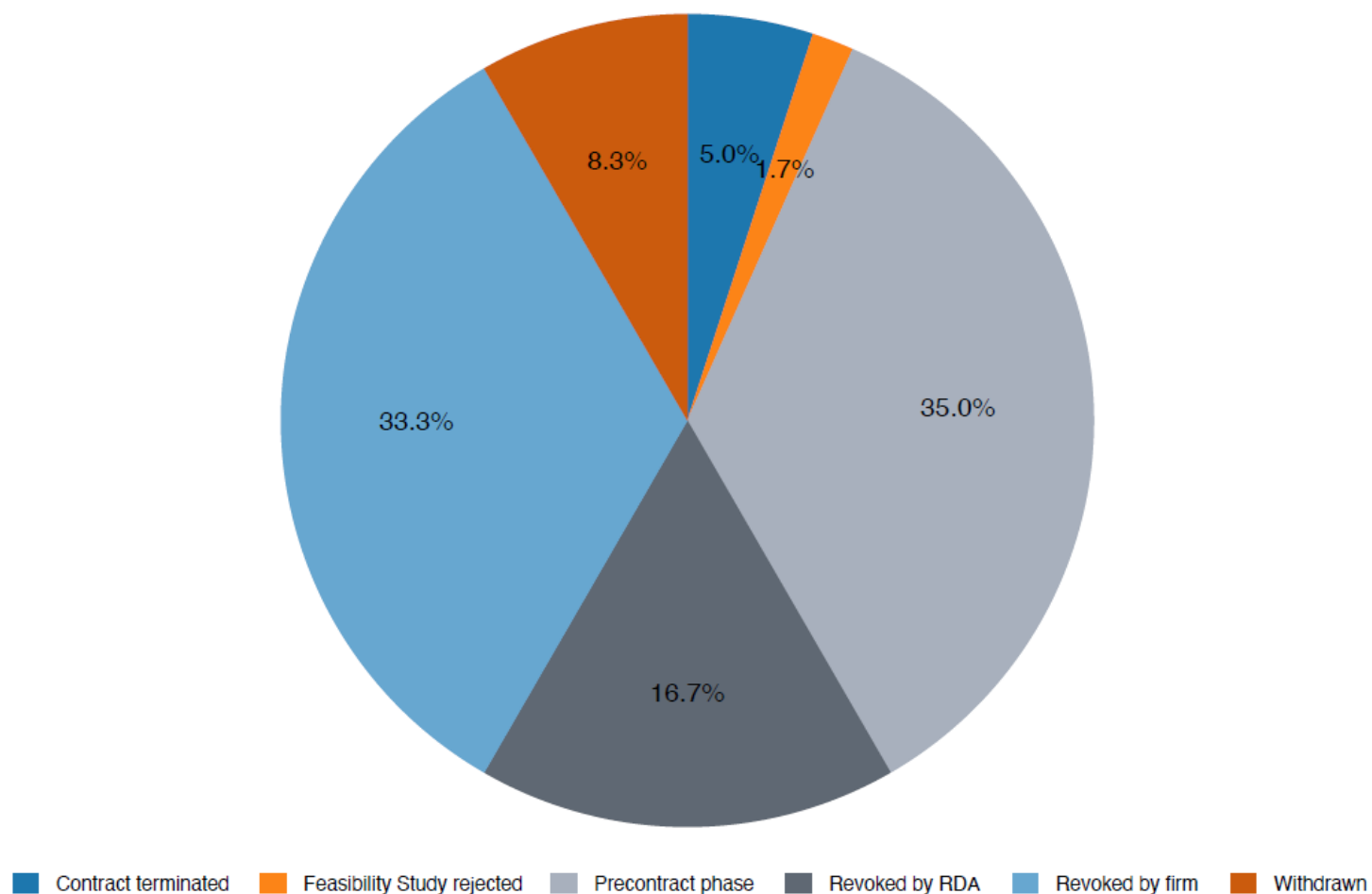
And here they
are cooking
again…

Thank you
for your attention!

Figure 4.4: Status of firms not having signed the contract

Legend: Contract terminated | Feasibility Study rejected | Precontract phase | Revoked by RDA | Revoked by firm | Withdrawn

Note: Contracting status as of 31 March 2025. The number of eligible firms not having signed the contract is 60 (out of 393 submitted DFS).
Source: Implementation data from RDA.

Results: Specialized Software

Treatment group shows higher use of specialized software: +26% CRM, +21% ERP

Table 5.4: Business Specialized Software in Use

	(1) CRM	(2) ERP	(3) SRM	(4) At least 1
Treatment	0.031*	0.056*	0.006	0.022
	(0.016)	(0.027)	(0.020)	(0.024)
Control Mean	0.117	0.260	0.100	0.321
Std. Dev.	0.323	0.439	0.300	0.468
Treat. Eff.: p-val.	0.094	0.085	0.761	0.396
Effect Size: percent	26.296	21.734	6.456	6.766
Effect Size: Std. Dev.	0.096	0.128	0.021	0.046
Sample Size	447	572	516	600
R^2	0.062	0.088	0.091	0.070

Note: Indicator variable for using any of the following business software: (1) CRM; (2) ERP; (3) SRM. Controls include all stratification variables, seven county dummies, a dummy for small firms, a dummy indicating whether the firm is above the median in the DESI score, and a dummy indicating whether baseline profits were above the median. Industry fixed effects include 22 industries. Standard errors are clustered at the county level. * significant at the 10% level, ** at the 5% level, *** at the 1% level.
Source: Survey data (follow-up Q2 2025) and authors' computations.