

THE ITALIAN INDUSTRY 4.0 PLAN:

ex-ante identification of potential beneficiaries,
ex-post assessment of the use of incentives

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THE INDUSTRIAL POLICY FRAMEWORK

INDUSTRY 4.0 POLICY IN ITALY: A STRATEGY

Fiscal incentives

Super-depreciation

Hyper-depreciation

Patent-box

Tax breaks for investing start-ups

R&D incentives

Easy access to finance

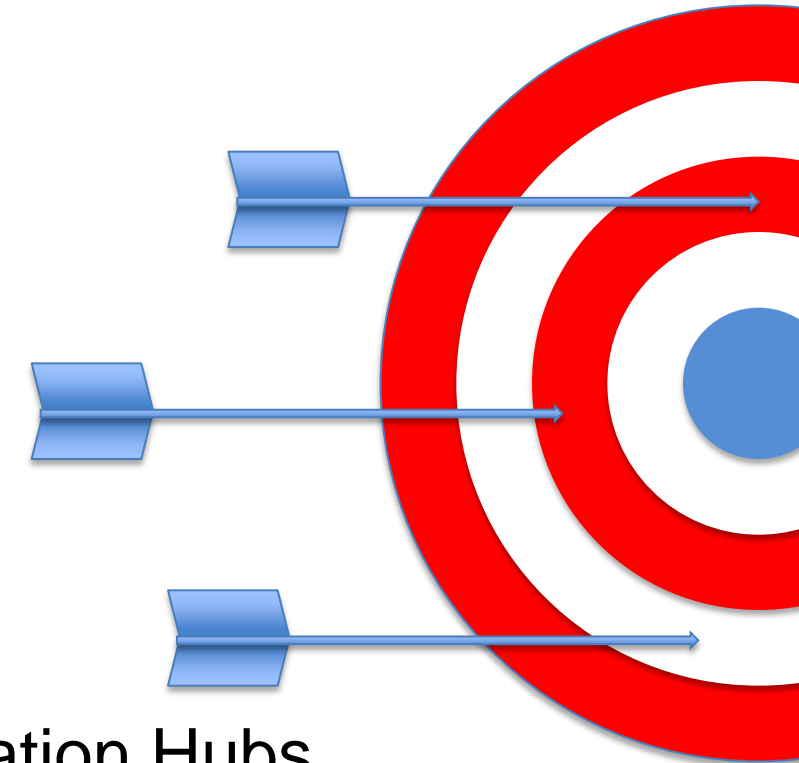
Nuova Sabatini SMEs

Guarantee Fund for SMEs

Development of skills

I4.0 Competence Centres

Digital Innovation Hubs



SUPPORTING TANGIBLE INVESTMENTS AND DIGITAL TRANSFORMATION

• SUPER-DEPRECIATION PROCESSES

Costs for investments in **new machinery** are increased (for fiscal reduction purposes) by **40%** of their value.

• HYPER-

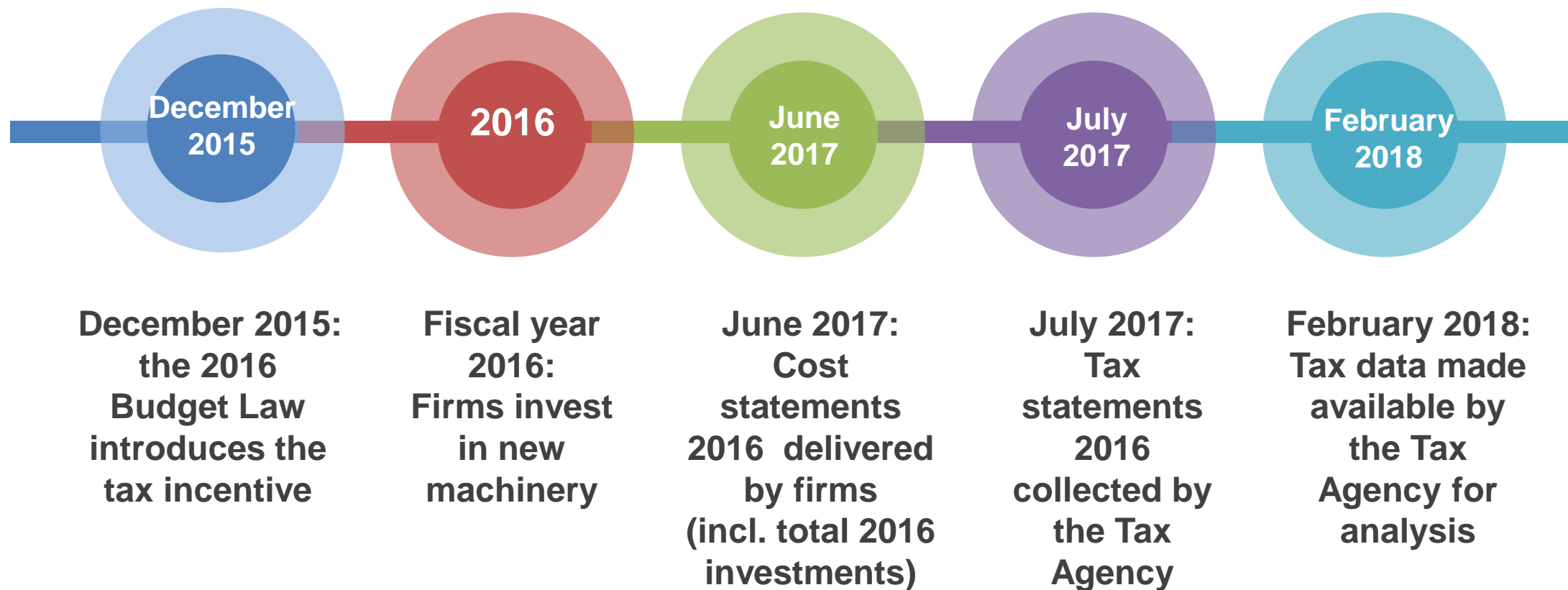
DEPRECIATION

Costs for investments in **digitally-connected devices** and related software are increased (for fiscal reduction purposes) by **150%** of their value.

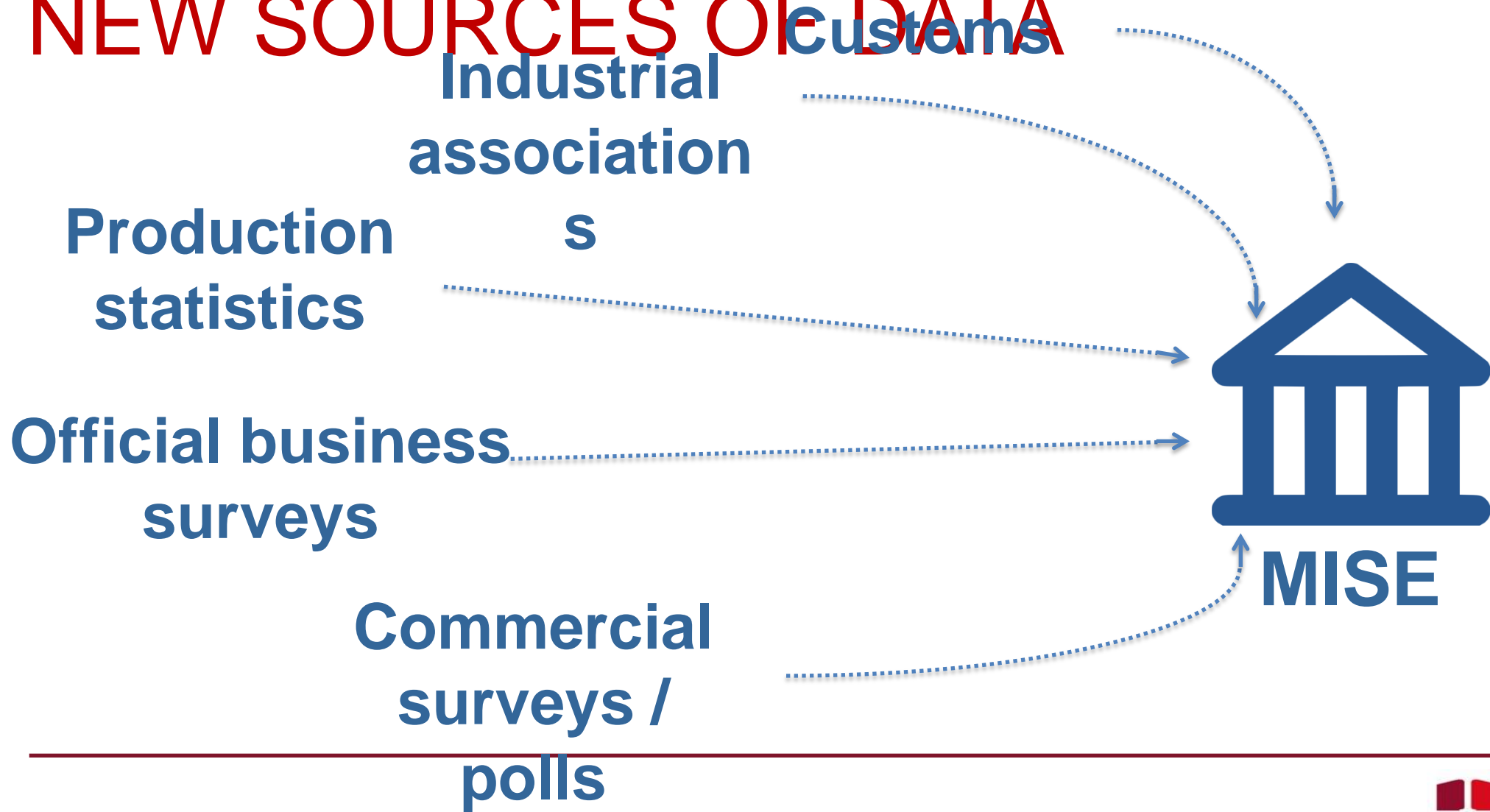


MONITORING INDIRECT INCENTIVES

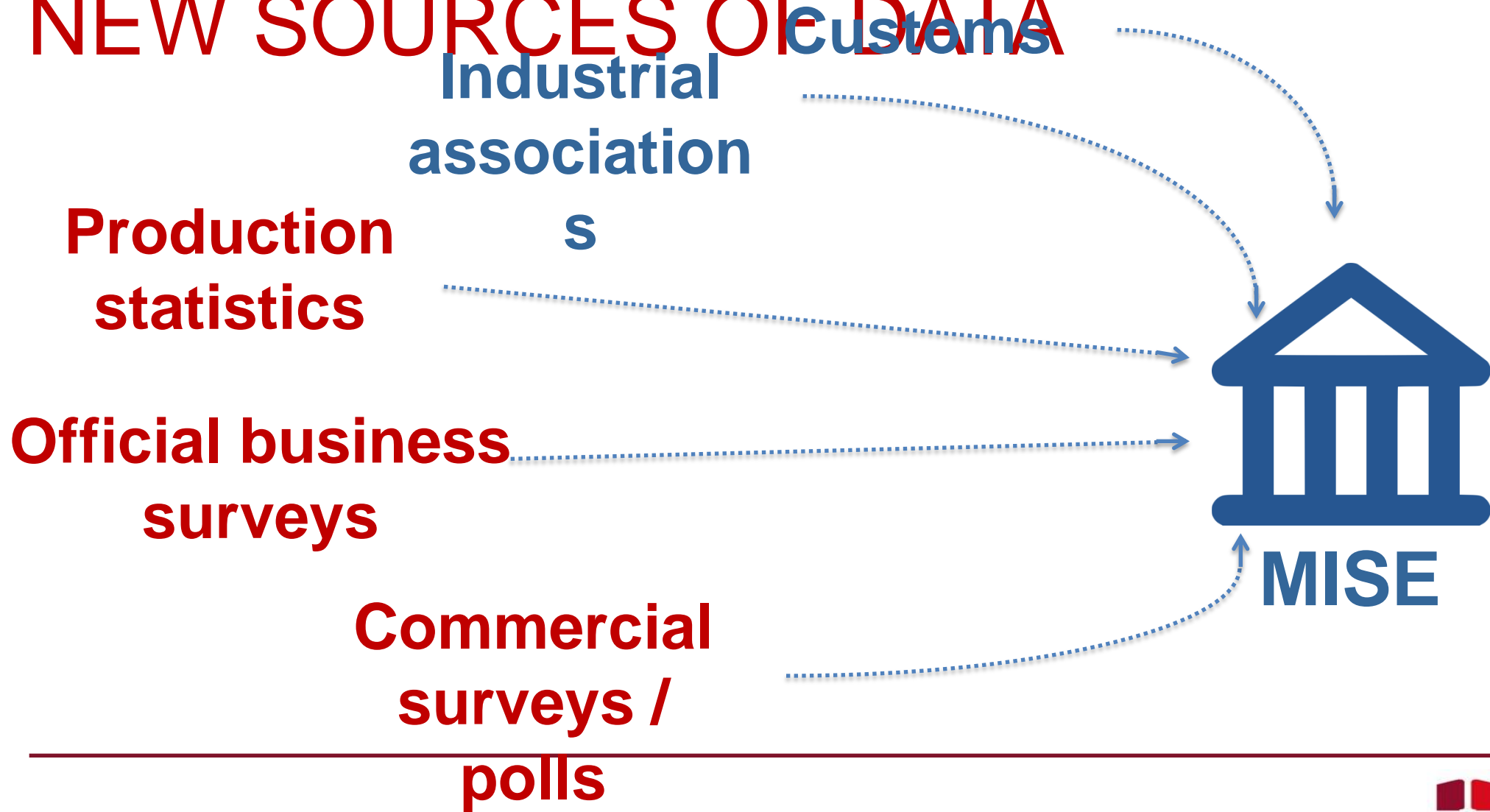
THE CHALLENGE: EX ANTE EVALUATION AND ON-GOING MONITORING



POLICY MONITORING: LOOKING FOR NEW SOURCES OF DATA



POLICY MONITORING: LOOKING FOR NEW SOURCES OF DATA



TWO EXAMPLES OF STATISTICAL MONITORING OF POLICIES

ISTAT Business confidence survey (late 2017)

- Sample 4,000 manufacturing firms
- For 62.1% of firms super-depreciation had a 'high' or 'moderate' role to increase their investments (53.3% for hyper-depreciation).

MET business survey (late 2017)

- Sample 23,700 firms (including micro-firms, <10 empls.)
- 15.2% of firms used either the super- or hyper-depreciation (47.5% for medium-large ones).

DIGITALISATION AND INCENTIVES

THE ISTAT EXERCISE: RESEARCH QUESTIONS

1. Does the level of digitalisation affect the propensity to use incentives for investing in:
 - a) New machinery ?
 - b) Digital technologies ?
2. Might the level of digitalisation be used to identify potential beneficiaries of incentives to invest in technology ?

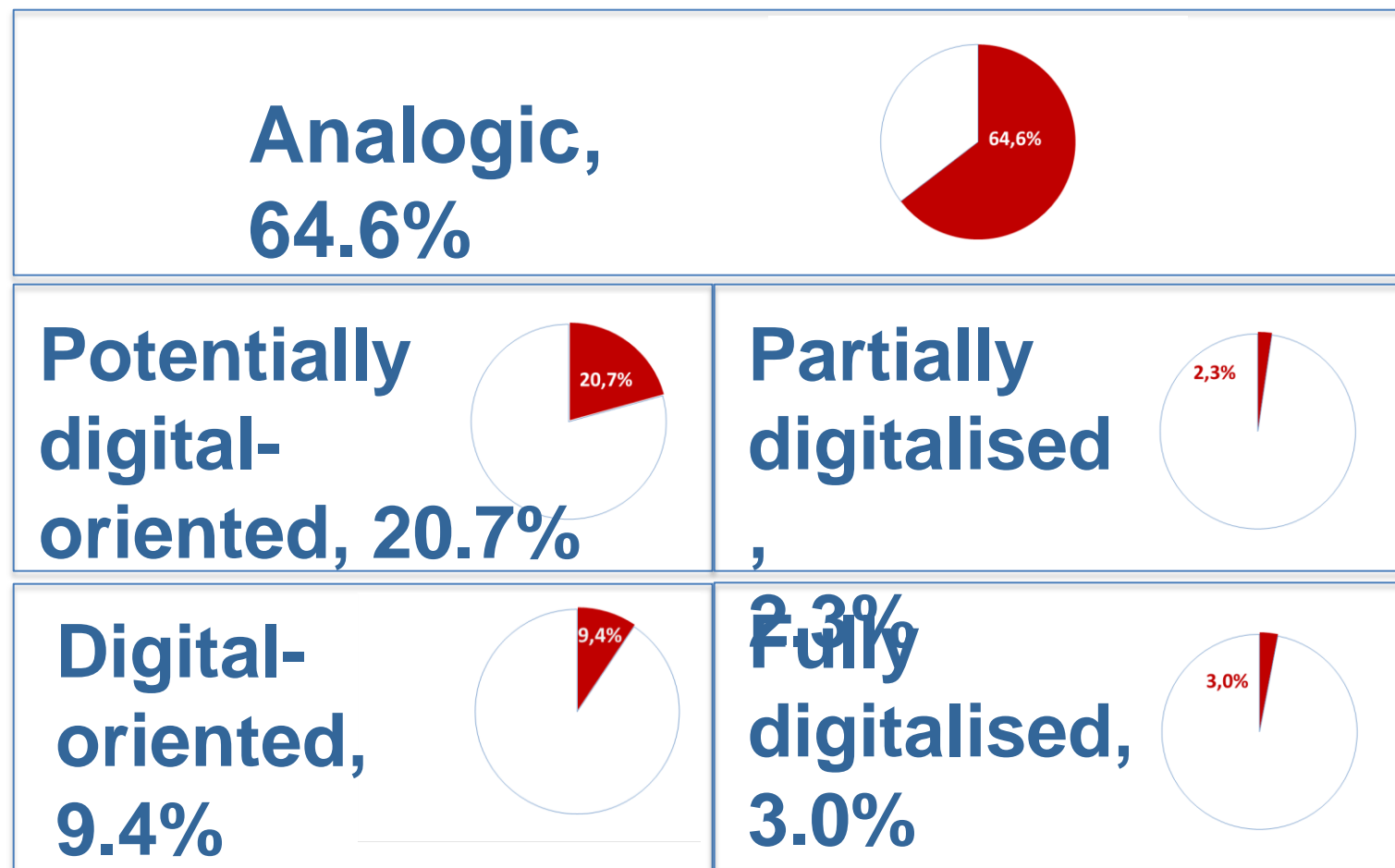
A FIRMS' TAXONOMY BY DIGITALISATION LEVEL

3 more digital indicators:
cloud and big data;
social media; IoT, VR,
add. printing,
robotics.

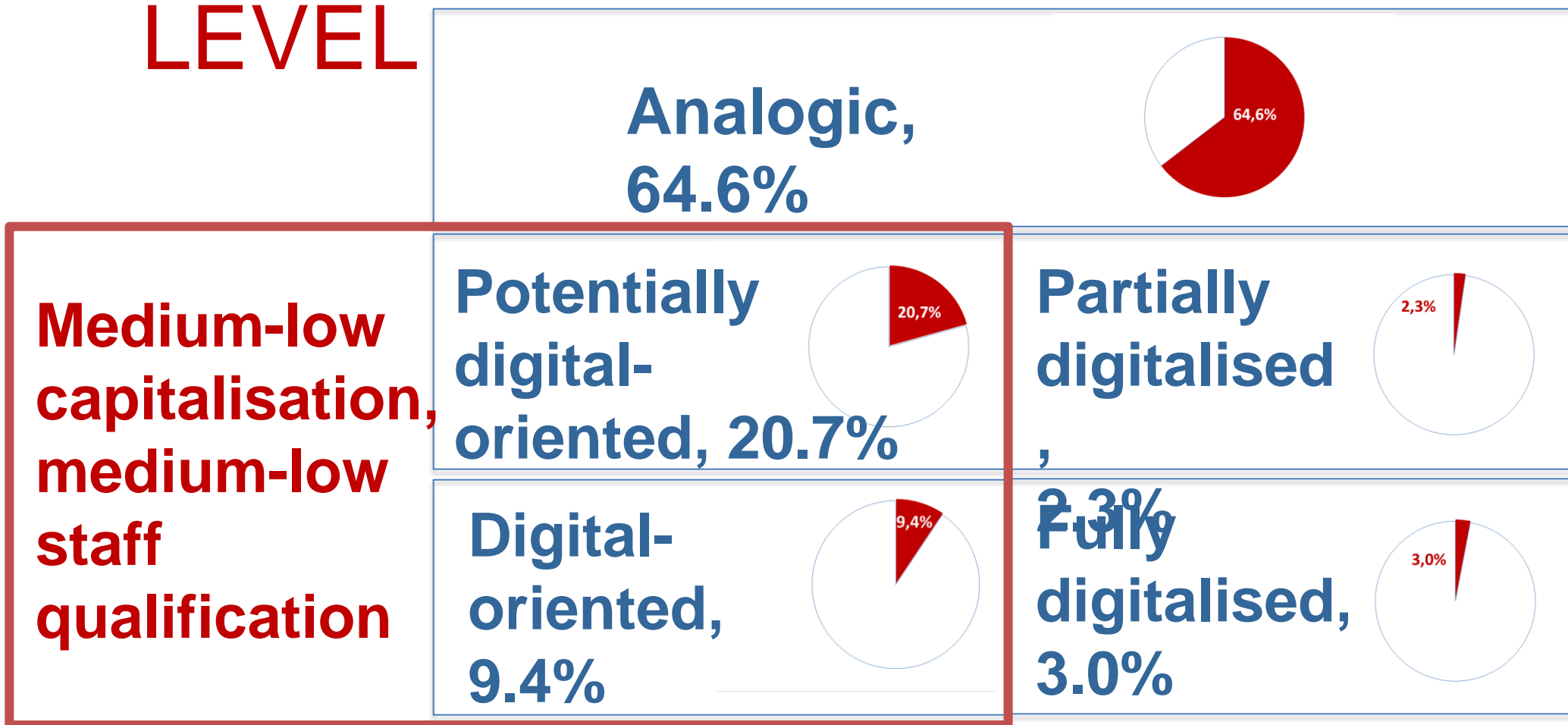
EUROSTAT's
Digital Intensity
Index
(12 indicators on
ICT use and e-
commerce)

Endowment of
fixed capital
and human
capital.

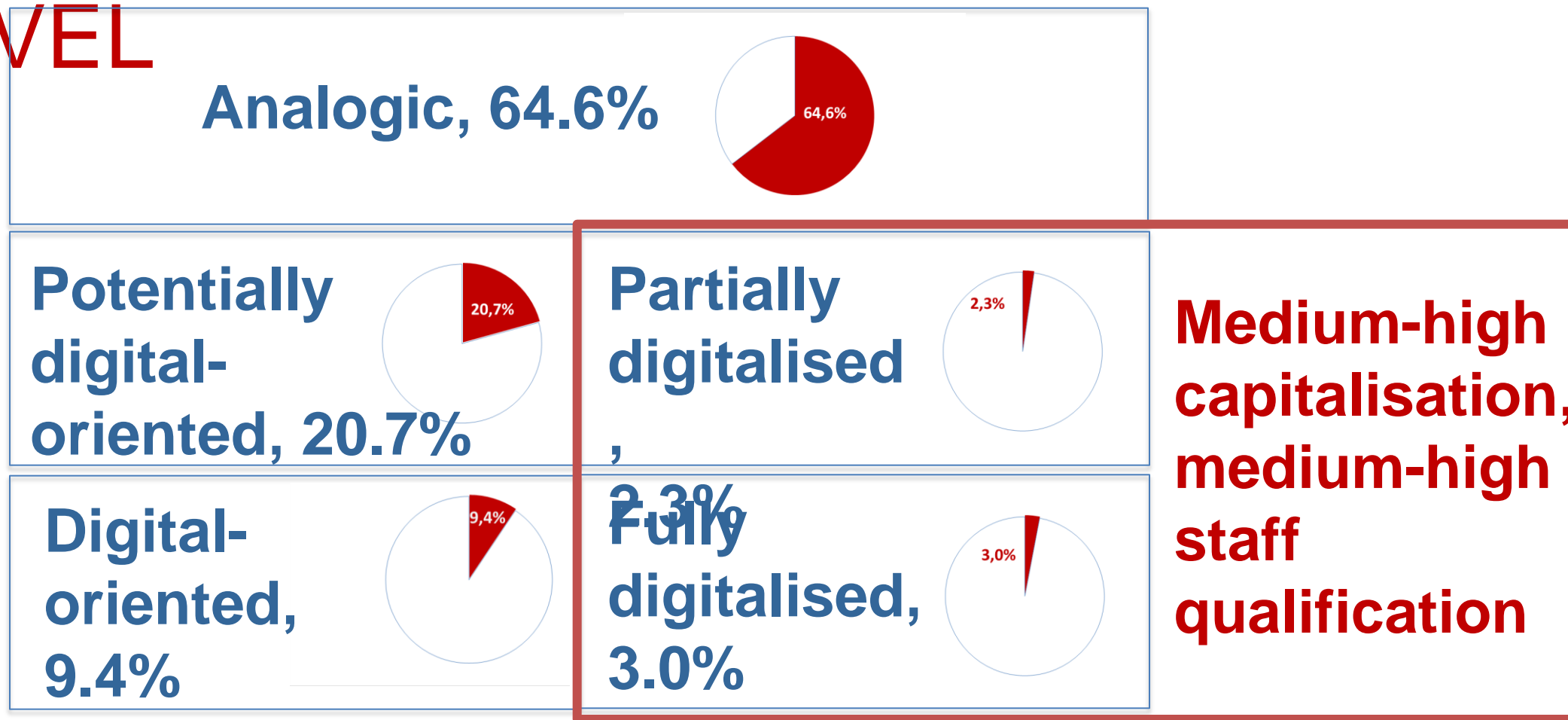
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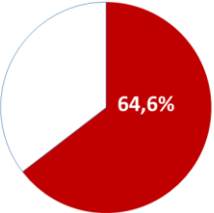
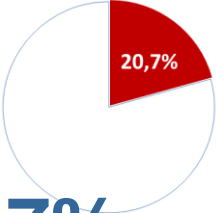
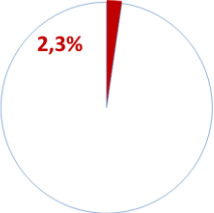
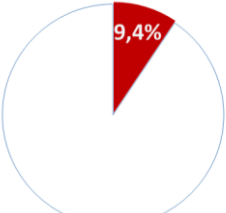
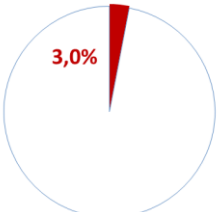
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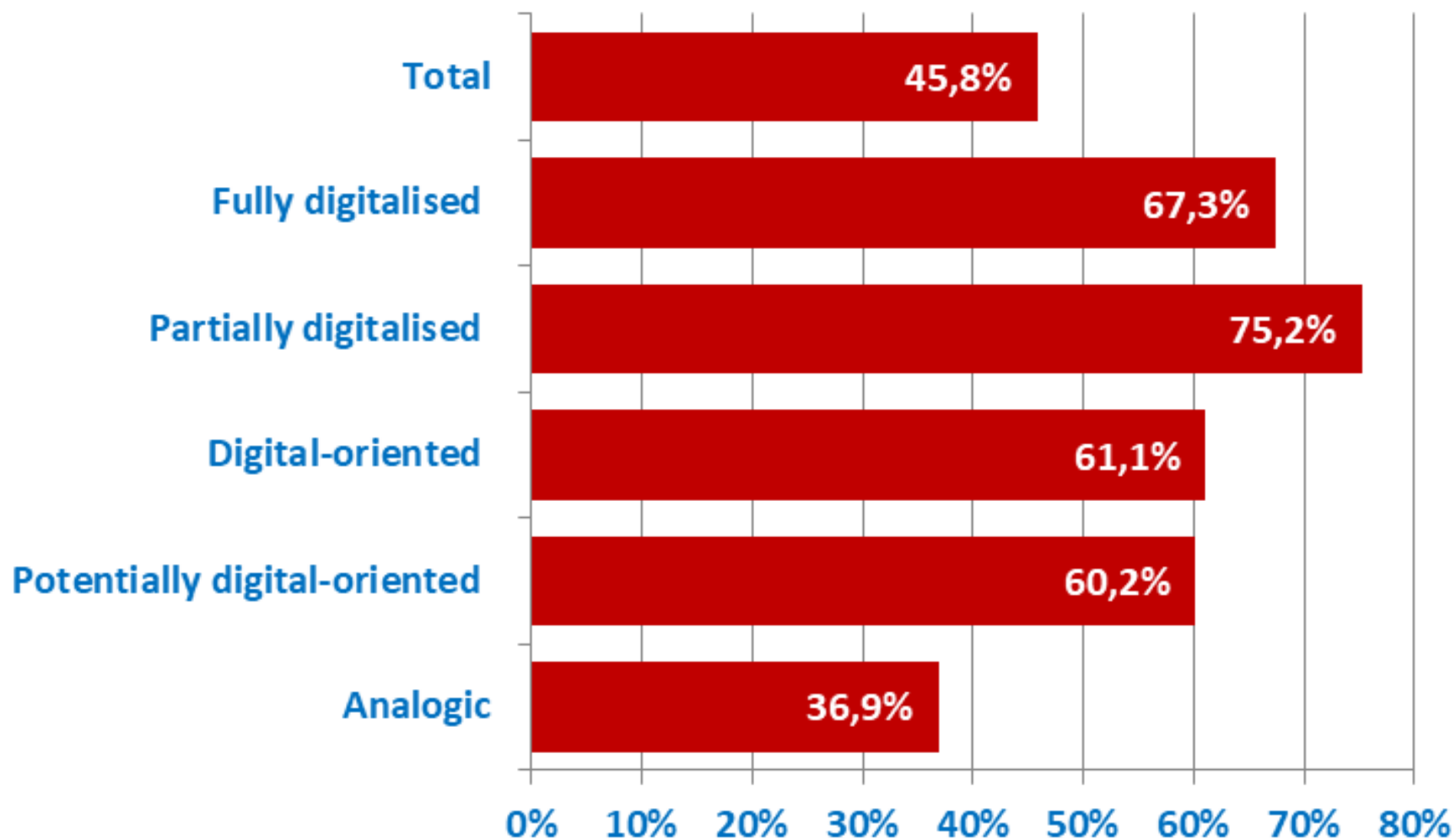
A FIRMS' TAXONOMY BY DIGITALISATION LEVEL

<p>Analogic, 64.6%</p> 		<p>Low</p>
<p>Potentially digital-oriented, 20.7%</p> 	<p>Partially digitalised, 2.3%</p> 	<p>Medium</p>
<p>Digital-oriented, 9.4%</p> 	<p>Fully digitalised, 3.0%</p> 	<p>High</p>

Degree of digitalisation

THE EXPECTED IMPACT OF INCENTIVES

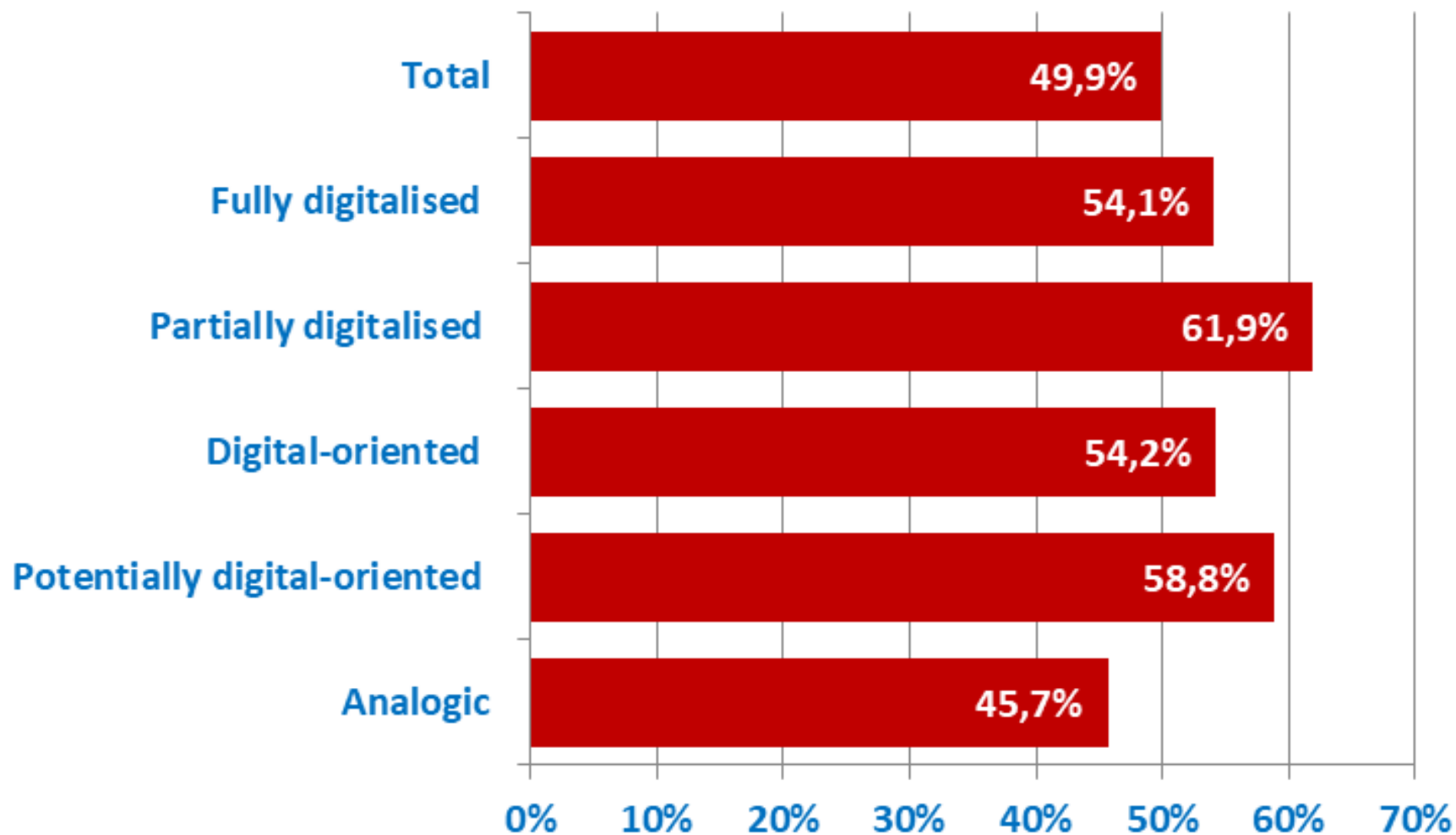
(2)



ACTUAL 2016 DATA ON INCENTIVES

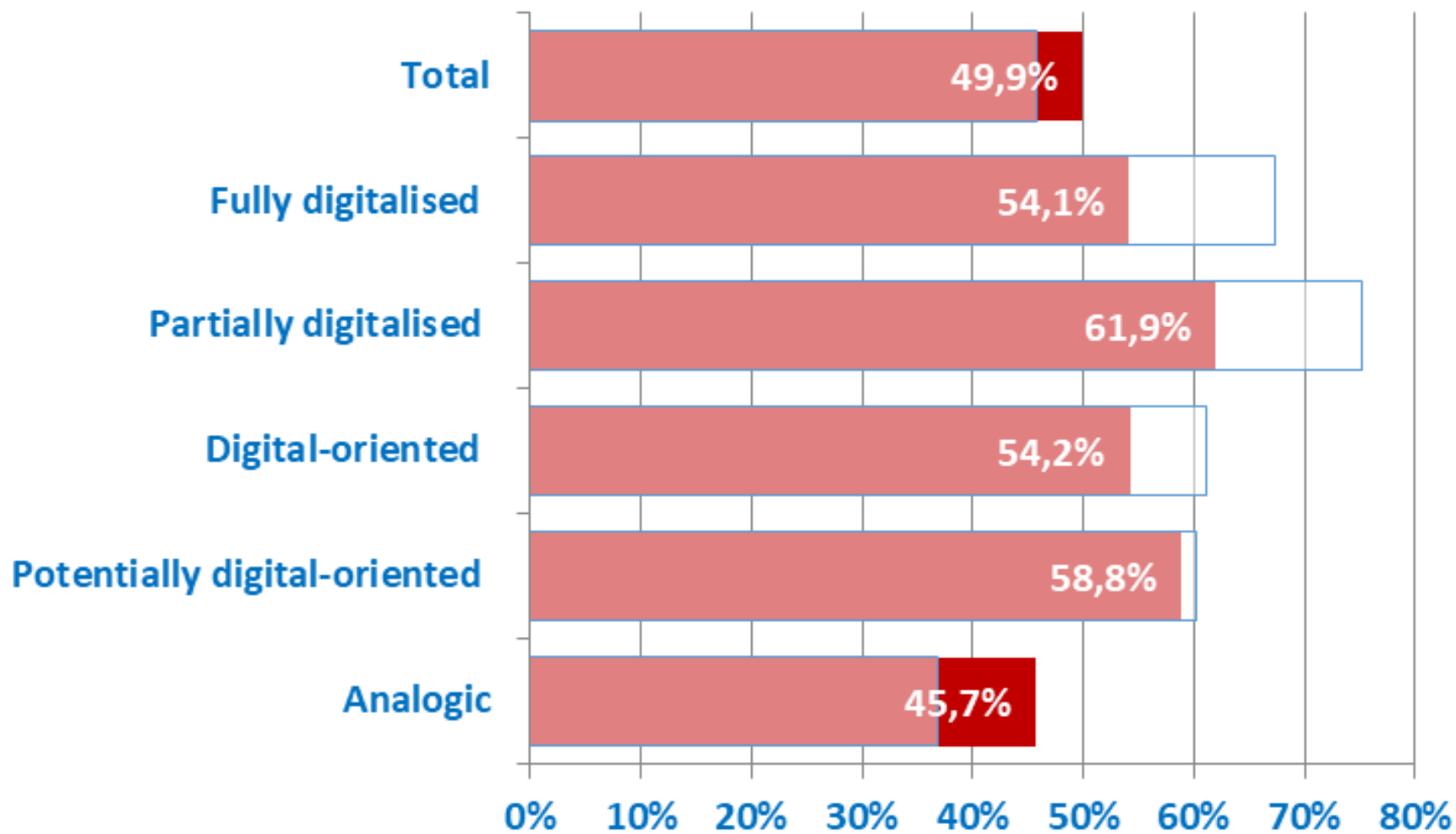
THE ACTUAL USE OF INCENTIVES (2016)

TA

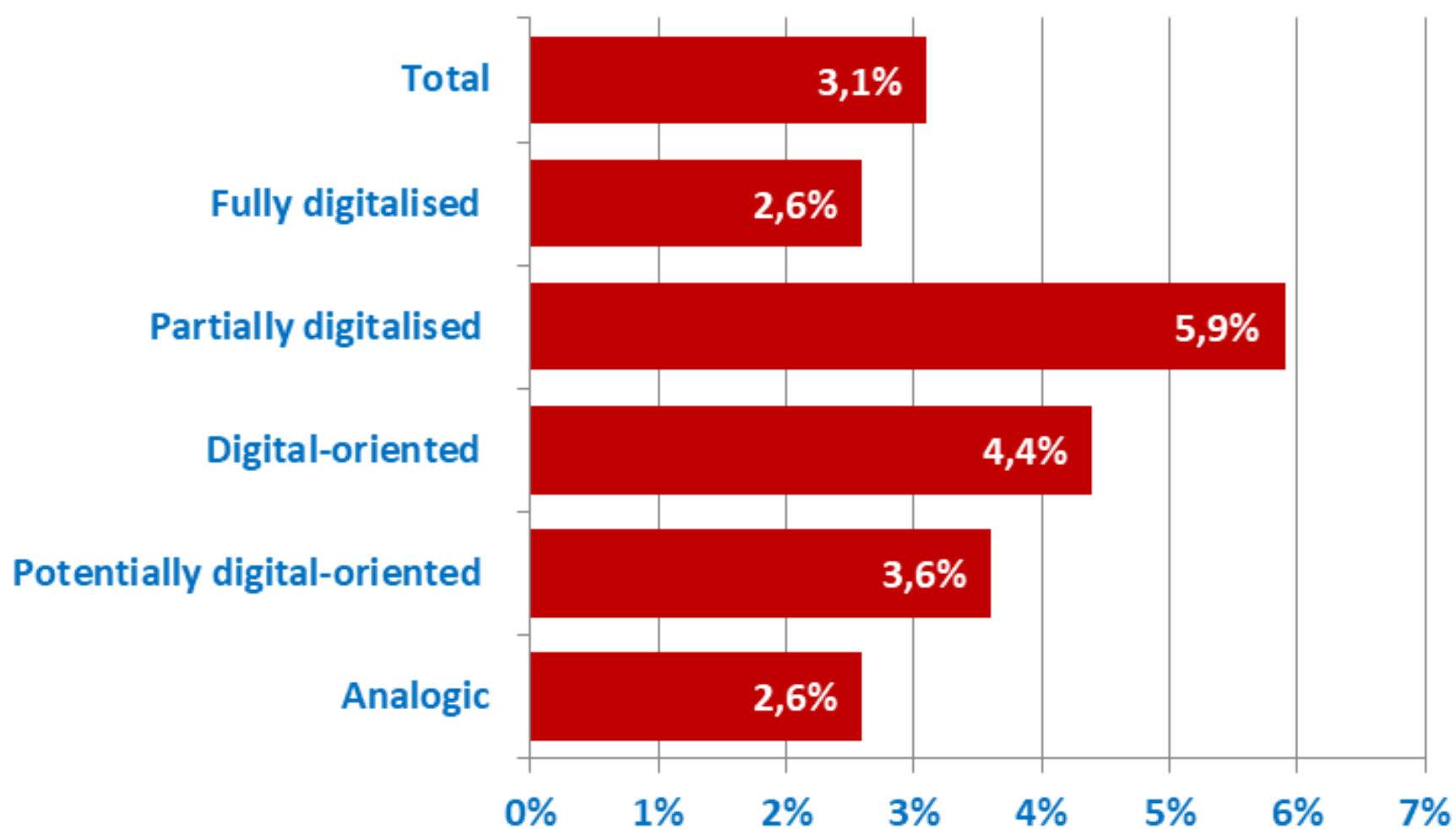


THE ACTUAL USE OF INCENTIVES (2016)

TA



THE ACTUAL USE OF HYPER- DE

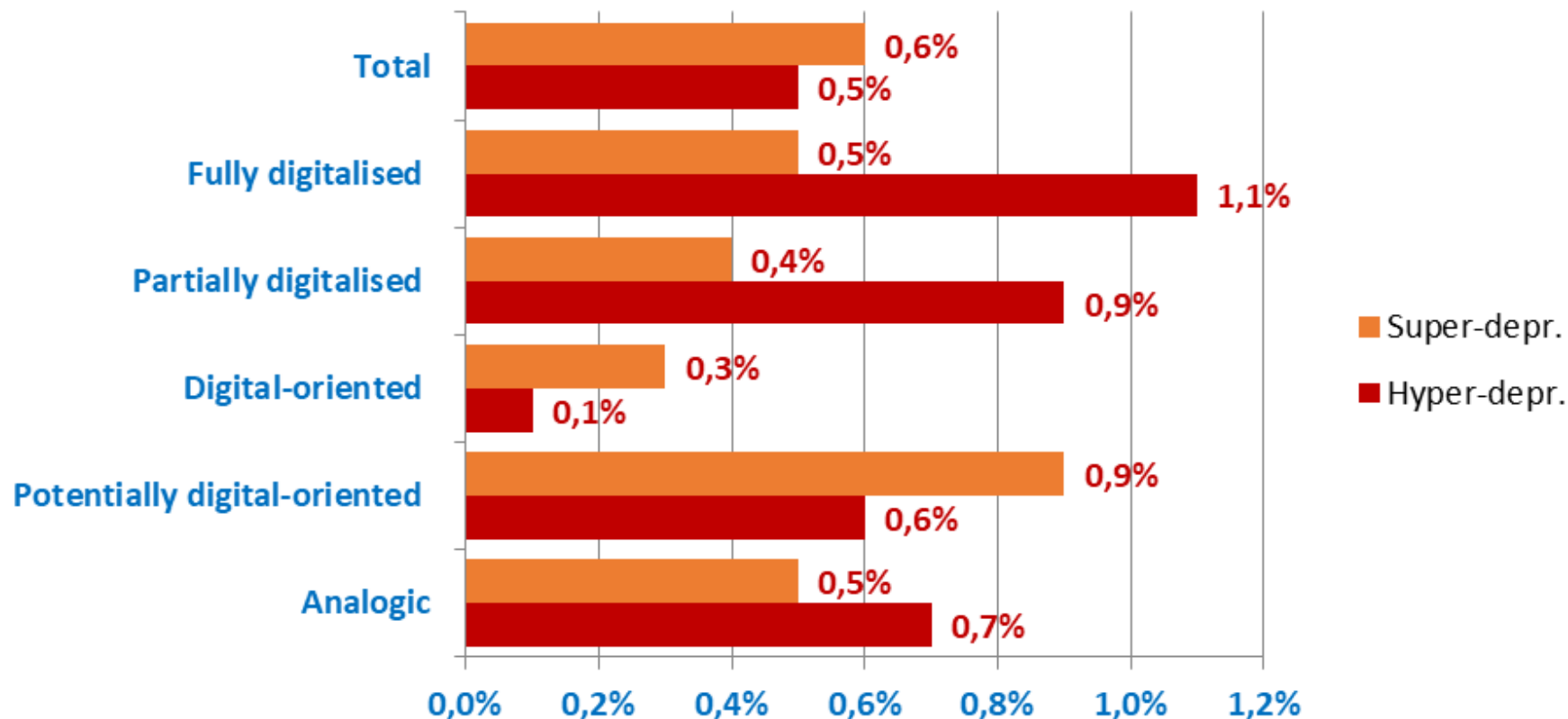


(A)

YEARLY AVERAGE % INCREASE OF WORKING CAPITAL PER EMPLOYEE.

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YE

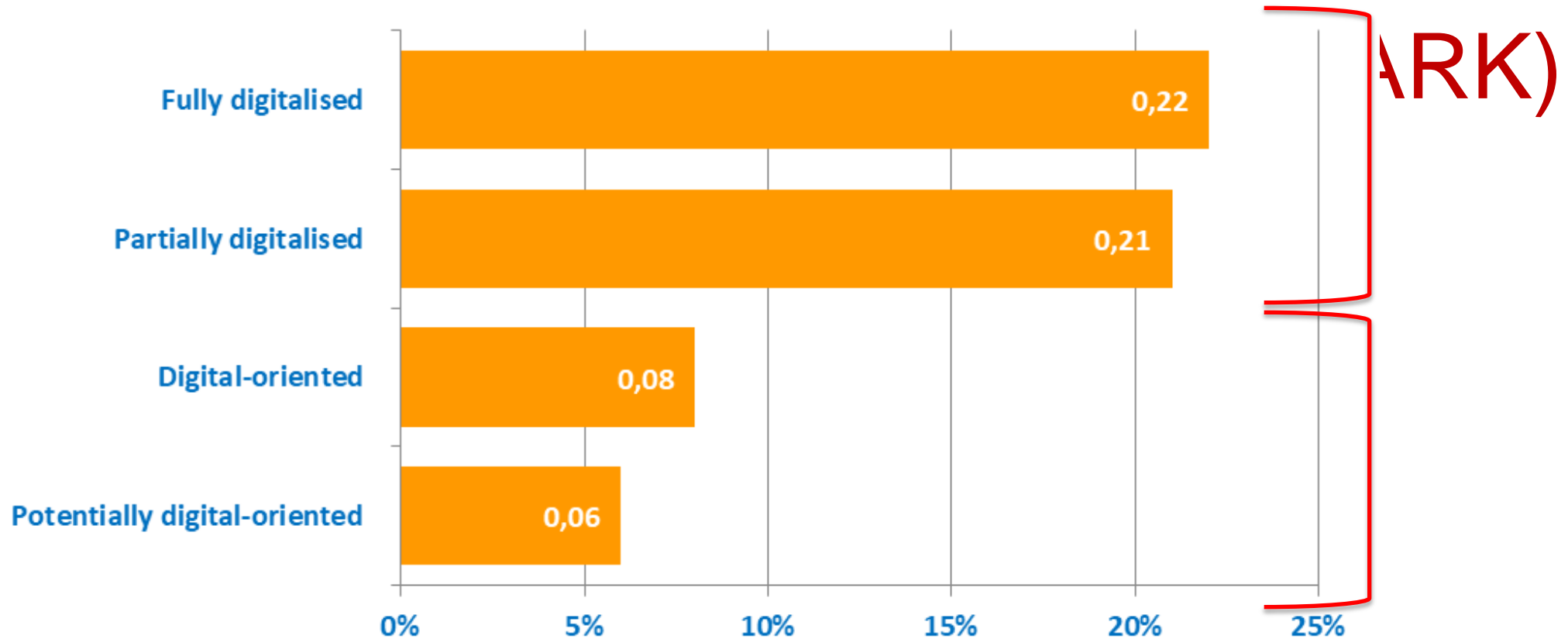
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WHICH FACTORS AFFECT THE USE OF INCENTIVES ?

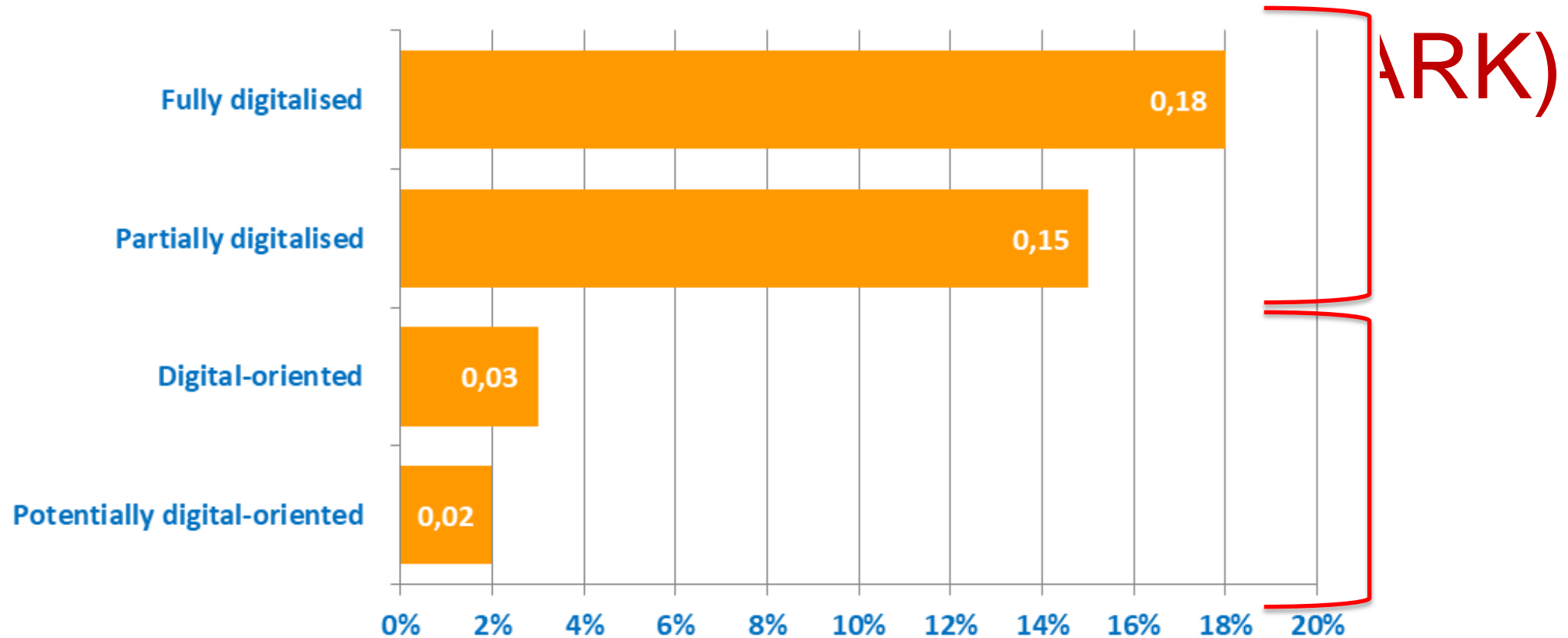
PROPENSITY TO USE SUPER-DEPRECIATION

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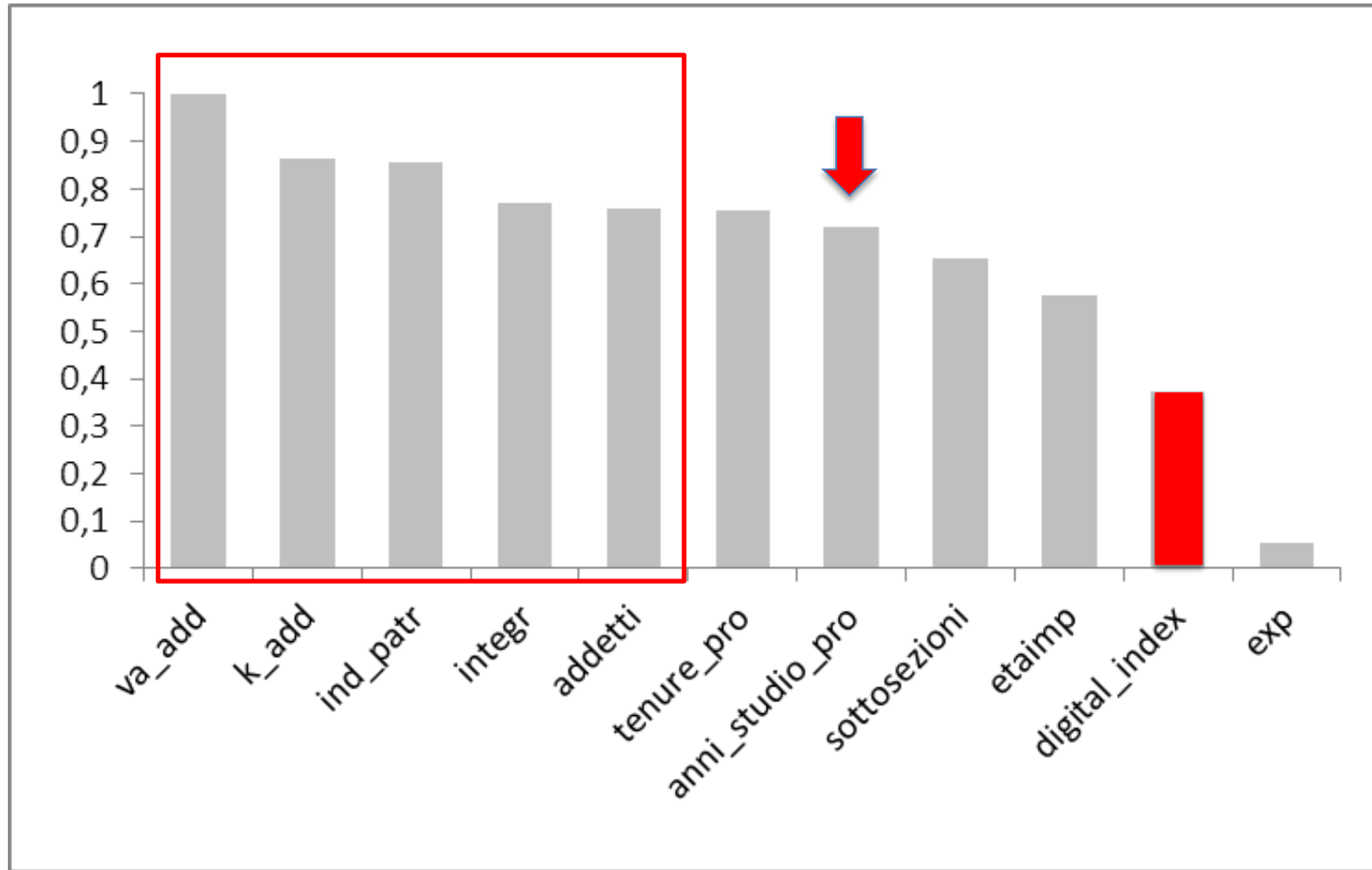


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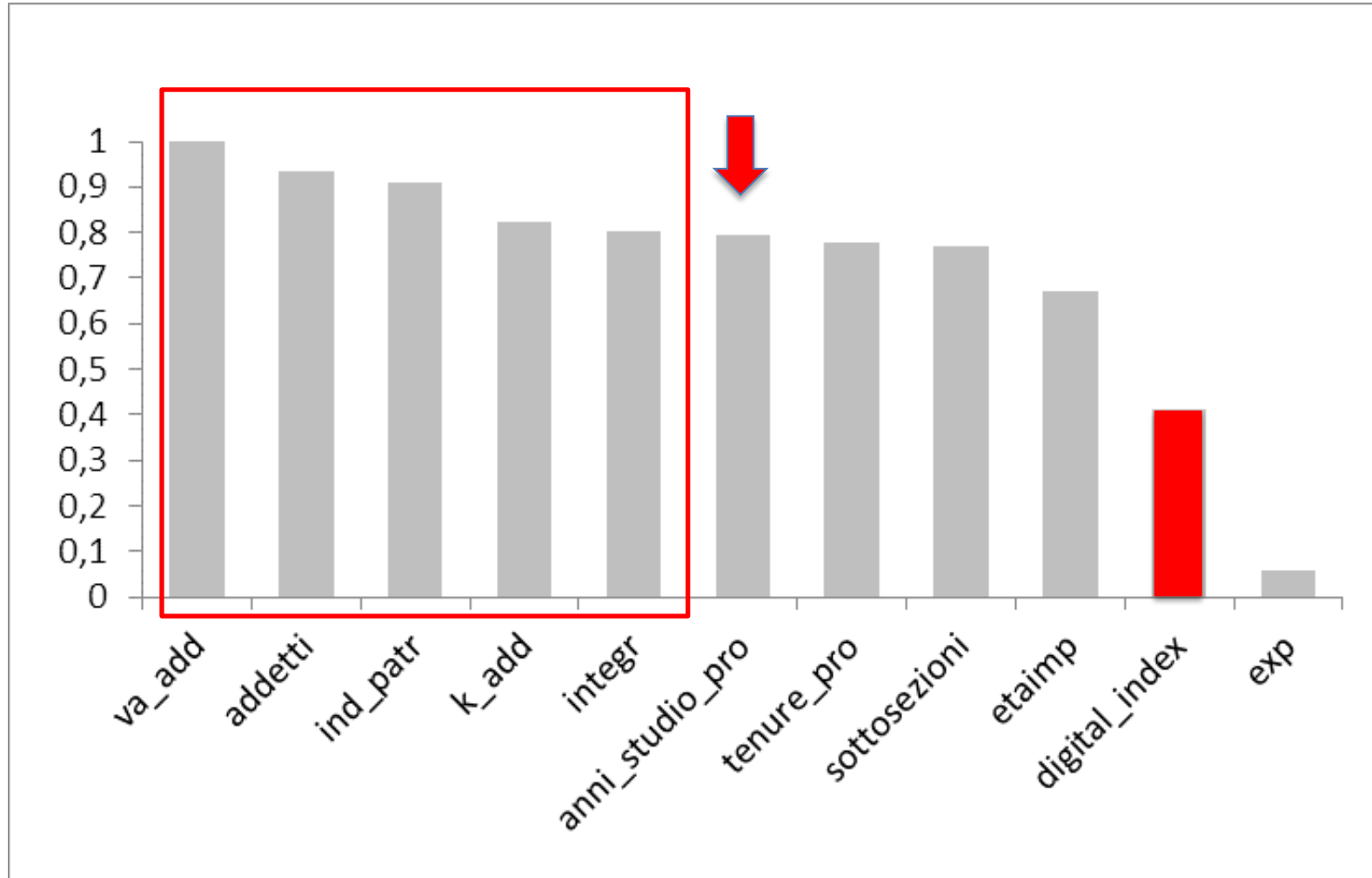


PROPENSITY TO USE SUPER-



Code	Variable name
va_add	Productivity (value added /p.e.)
k_add	Working capital/p.e.
ind_patr	Debt/capital ratio
integr	Vertical integration
addetti	Persons employed
tenure_pr	Tenure (years, avg.)
anni_studi	Years of study of employees (av)
o_pro	Economic activity
sottosezni	Firm's age (years)
etaimp	Digital intensity (5 groups)
digital_ind	Exporter status
ex	
exp	

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CONCLUSIONS

MAIN FINDINGS

- 1. The level of digitalisation does not affect the access to incentives thus, as a consequence:**
 - a) It does not affect the level of investment in new technology.**

(Do ICT surveys produce indicators relevant to the measurement of firms' « digitalisation » ?)
- 2. Monitoring the use of incentives with surveys is clearly biased by an optimistic attitude of respondents.**
- 3. Technical, financial and human capabilities are the ~~key factors boosting investment in new technologies.~~**

POLICY ISSUES

1. Making digitalisation targets more realistic for a largest population of firms.
2. Increasing the impact by preventing pulverisation of incentives.
3. Focusing public support on firms (mainly SMEs) only « potentially » digitalised.
4. Considering a « two steps » approach (already partly implemented):
 - a) Supporting the development of capabilities, then
 - b) Funding the digitalisation process.