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Directorate G: Business and trade statistics
Unit G2: European Businesses

CIS 2020 Innovation profiles

Derivation rules

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1 Introduction

This document presents the specifications for derivation of the detailed innovation profiles based on CIS 2020 data. The rules reflect the structure and content of CIS 2020 questionnaire.

2 CIS 2020 Innovation profiles - overview

Seven broad innovation profiles are conceptualized taking into account innovation characteristics of enterprises.

Profile I: In-house product innovators with market novelties

Profile II: In-house product innovators without market novelties

Profile III: In-house business process innovators (without in-house product innovations)

Profile IV: Innovators that did not develop innovations themselves

Profile V: Innovation active non-innovators (without implemented innovation)

Profile VI: Not innovation active enterprises with potential to innovate

Profile VII: Not innovation active enterprises without disposition to innovate

Profiles I to V are differentiated between R&D and no R&D performers (resp. A and B).

[Innovation profiles of enterprises CIS 2020 in Eurobase](#)

Table 1 : Broad and detailed innovation profiles and their nomenclature in Eurobase

CODE DERIVATION	CODE EUROBASE	LABEL
Profile I	INN_PF1	Enterprises that have developed product innovations themselves, with market novelties (profile I)
Profile I_A	INN_PF1_RND	Enterprises that have developed product innovations themselves, with market novelties, with R&D activities (profile I.A)
Profile I_B	INN_PF1_NRND	Enterprises that have developed product innovations themselves, with market novelties, without R&D activities (profile I.B)
Profile II	INN_PF2	Enterprises that have developed product innovations themselves, without market novelties (profile II)
Profile II_A	INN_PF2_RND	Enterprises that have developed product innovations themselves, without market novelties, with R&D activities (profile II.A)
Profile II_B	INN_PF2_NRND	Enterprises that have developed product innovations themselves, without market novelties, without R&D activities (profile II.B)
Profile III	INN_PF3	Enterprises that have developed business process innovations themselves, without product innovation (profile III)
Profile III_A	INN_PF3_RND	Enterprises that have developed business process innovations themselves, without product innovation, with R&D activities (profile III.A)
Profile III_B	INN_PF3_NRND	Enterprises that have developed business process innovations themselves, without product innovation, without R&D activities (profile III.B)
Profile IV	INN_PF4	Enterprises that have introduced but not themselves developed innovations (profile IV)
Profile IV_A	INN_PF4_RND	Enterprises that have introduced but not themselves developed innovations, with R&D activities (profile IV.A)
Profile IV_B	INN_PF4_NRND	Enterprises that have introduced but not themselves developed innovations, without R&D activities (profile IV.B)
Profile V	INN_PF5	Enterprises that have innovation activities but not introduced any innovation (ongoing or abandoned innovation activities) (profile V)
Profile V_A	INN_PF5_RND	Enterprises that have (ongoing or abandoned) innovation activities but not introduced any innovation, with R&D activities (profile V.A)
Profile V_B	INN_PF5_NRND	Enterprises that have (ongoing or abandoned) innovation activities but not introduced any innovation, without R&D activities (profile V.B)
Profile VI_	NINN_PF6	Enterprises that have no innovation activities but potential to innovate (profile VI)
Profile VII	NINN_PF7	Enterprises that have no innovation activities and no potential to innovate (profile VII)

4 Innovation profiles – derivation rules

This section presents the derivation rules for every single profile. The formulas are using variables codes from Harmonised Data Collection 2020 (Annex 2 of Metadata file). The changes compared to 2018 derivation rules are marked in red.

PROFILE I-A

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [INNO_PRD_NEW_MKT = 1] **not previously offered by competitors**
AND [DEVE_PRD_ENT = 1 OR DEVE_PRD_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

PROFILE I-B

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [INNO_PRD_NEW_MKT = 1] **not previously offered by competitors**
AND [DEVE_PRD_ENT = 1 OR DEVE_PRD_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

PROFILE II-A

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [INNO_PRD_NEW_MKT <> 1] **previously offered by competitors**
AND [DEVE_PRD_ENT = 1 OR DEVE_PRD_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

PROFILE II-B

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [INNO_PRD_NEW_MKT <> 1] **previously offered by competitors**
AND [DEVE_PRD_ENT = 1 OR DEVE_PRD_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

PROFILE III-A

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1] **no product innovation**
AND [INNO_PCS_PRD = 1 OR INNO_PCS_LOG = 1 OR INNO_PCS_COMM = 1 OR INNO_PCS_ACCT = 1
OR INNO_PCS_OPROC_EXTREL = 1 OR INNO_PCS_WR_DEC_HRM = 1 OR INNO_PCS_SLS_SERV = 1]
business process innovation
AND [DEVE_PCS_ENT = 1 OR DEVE_PCS_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

PROFILE III-B

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1] **no product innovation**
AND [INNO_PCS_PRD = 1 OR INNO_PCS_LOG = 1 OR INNO_PCS_COMM = 1 OR INNO_PCS_ACCT = 1
OR INNO_PCS_OPROC_EXTREL = 1 OR INNO_PCS_WR_DEC_HRM = 1 OR INNO_PCS_SLS_SERV = 1]
business process innovation
AND [DEVE_PCS_ENT = 1 OR DEVE_PCS_ENT_OTH=1 OR COOP_RND = 1 OR COOP_INN_XRND = 1]
in-house innovation
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

PROFILE IV-A

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [DEVE_PRD_ENT <> 1 AND DEVE_PRD_ENT_OTH<>1 AND COOP_RND <> 1 AND
COOP_INN_XRND <> 1] **no in-house innovation**
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

OR

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1] **no product innovation**
AND [INNO_PCS_PRD = 1 OR INNO_PCS_LOG = 1 OR INNO_PCS_COMM = 1 OR INNO_PCS_ACCT = 1
OR INNO_PCS_OPROC_EXTREL = 1 OR INNO_PCS_WR_DEC_HRM = 1 OR INNO_PCS_SLS_SERV = 1]
business process innovation
AND [DEVE_PCS_ENT <> 1 AND DEVE_PCS_ENT_OTH <>1 AND COOP_RND <> 1 AND
COOP_INN_XRND <> 1] **no in-house innovation**
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

PROFILE IV-B

[INNO_PRD_GD = 1 OR INNO_PRD_SERV = 1] **product innovation**
AND [DEVE_PRD_ENT <> 1 AND DEVE_PRD_ENT_OTH<>1 AND COOP_RND <> 1 AND
COOP_INN_XRND <> 1] **no in-house innovation**
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

OR

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1] **no product innovation**
AND [INNO_PCS_PRD = 1 OR INNO_PCS_LOG = 1 OR INNO_PCS_COMM = 1 OR INNO_PCS_ACCT = 1
OR INNO_PCS_OPROC_EXTREL = 1 OR INNO_PCS_WR_DEC_HRM = 1 OR INNO_PCS_SLS_SERV = 1]
business process innovation
AND [DEVE_PCS_ENT <> 1 AND DEVE_PCS_ENT_OTH <>1 AND COOP_RND <> 1 AND
COOP_INN_XRND <> 1] **no in-house innovation**
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

PROFILE V-A

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1 AND INNO_PCS_PRD <> 1 AND INNO_PCS_LOG <> 1
AND INNO_PCS_COMM <> 1 AND INNO_PCS_AC
CT <> 1 AND INNO_PCS_OPROC_EXTREL <> 1 AND INNO_PCS_WR_DEC_HRM <> 1 AND
INNO_PCS_SLS_SERV <> 1] **neither product innovation nor business process innovation**
AND [INNA_IH_RND = 1 OR INNA_RND_CONTR_OUT = 1] **R&D**

PROFILE V-B

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1 AND INNO_PCS_PRD <> 1 AND INNO_PCS_LOG <> 1
AND INNO_PCS_COMM <> 1 AND INNO_PCS_ACCT <> 1 AND INNO_PCS_OPROC_EXTREL <> 1 AND
INNO_PCS_WR_DEC_HRM <> 1 AND INNO_PCS_SLS_SERV <> 1] **neither product innovation nor
business process innovation**
AND [INNA_COMPL = 1 OR INNA_ONGO = 1 OR INNA_ABDN = 1] **completed, ongoing or
abandoned innovation activities**
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

PROFILE VI

[INNO_PRD_GD <> 1 AND INNO_PRD_SERV <> 1 AND INNO_PCS_PRD <> 1 AND INNO_PCS_LOG <> 1
AND INNO_PCS_COMM <> 1 AND INNO_PCS_ACCT <> 1 AND INNO_PCS_OPROC_EXTREL <> 1 AND
INNO_PCS_WR_DEC_HRM <> 1 AND INNO_PCS_SLS_SERV <> 1] **neither product innovation nor
business process innovation**
AND [INNA_COMPL <> 1 AND INNA_ONGO <> 1 AND INNA_ABDN <> 1] **no completed, ongoing or
abandoned innovation activities**
AND [INNA_IH_RND <> 1 AND INNA_RND_CONTR_OUT <> 1] **no R&D**

AND (one of the below options)

Option 1: [STRA_FIMPGS = 3 OR STRA_FNWGS= 3]

Strong focus on 'innovative strategies' (most discriminatory strategies using CIS 2020 data): high focus on improving existing goods or services and high focus on customer-specific solutions

Option 2: [PUR_MES_NEW = 1]

Purchased machinery and equipment or software based on new technology not used in the enterprise before

Option 3: [HAMP_LFIN_INT =3 OR HAMP_LCRED_LEQUIT = 3 OR HAMP_DIF_SUB = 3 OR
HAMP_HCOST = 3 OR HAMP_LQLF_SAL = 3 OR HAMP_LCOLL_PTN = 3 OR HAMP_LACS_KNOW = 3 OR
HAMP_UNC_MKT_DM =3 OR HAMP_HCOMP = 3 OR HAMP_DPRIOR = 3]

At least one highly important hampering factor

PROFILE VII

All other enterprises

