

Assessment of Smart Specialisation Strategies Implementation and Impact

The European Commission's
science and knowledge service
Joint Research Centre

The European Commission's
science and knowledge service

Joint Research Centre

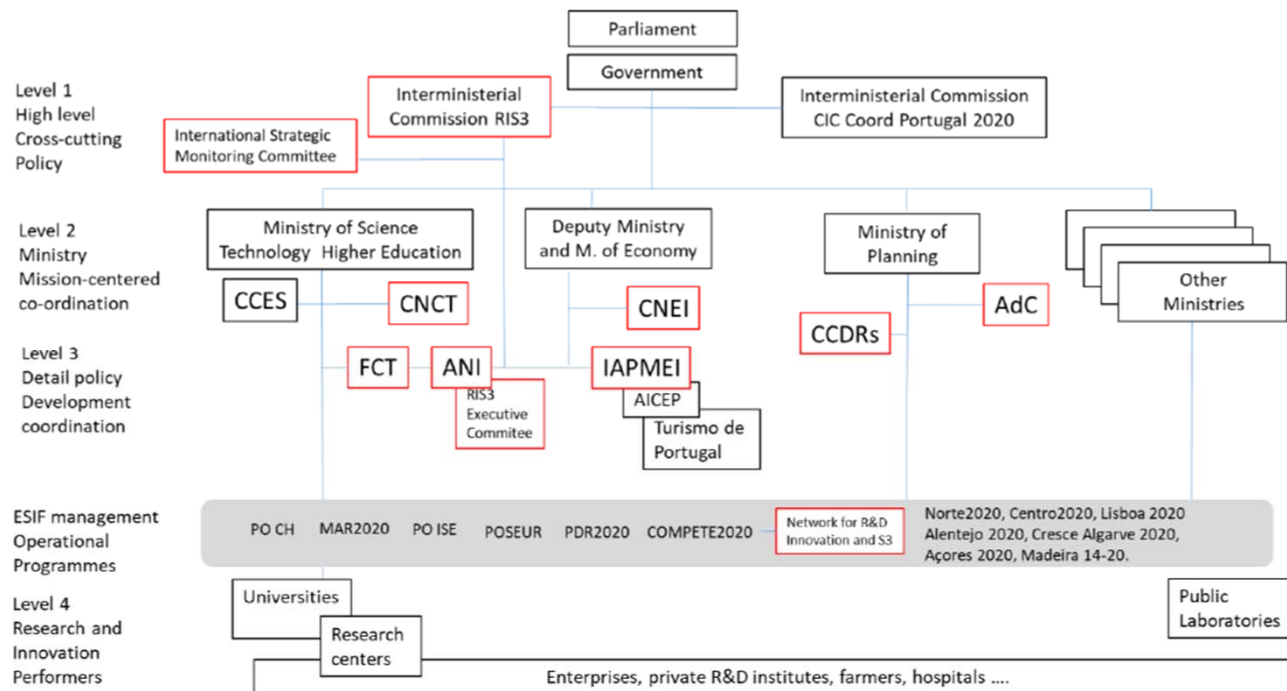
Assesment of Smart Specialisation Strategies Implementation and Impact

José Carlos Caldeira
22-09-2020



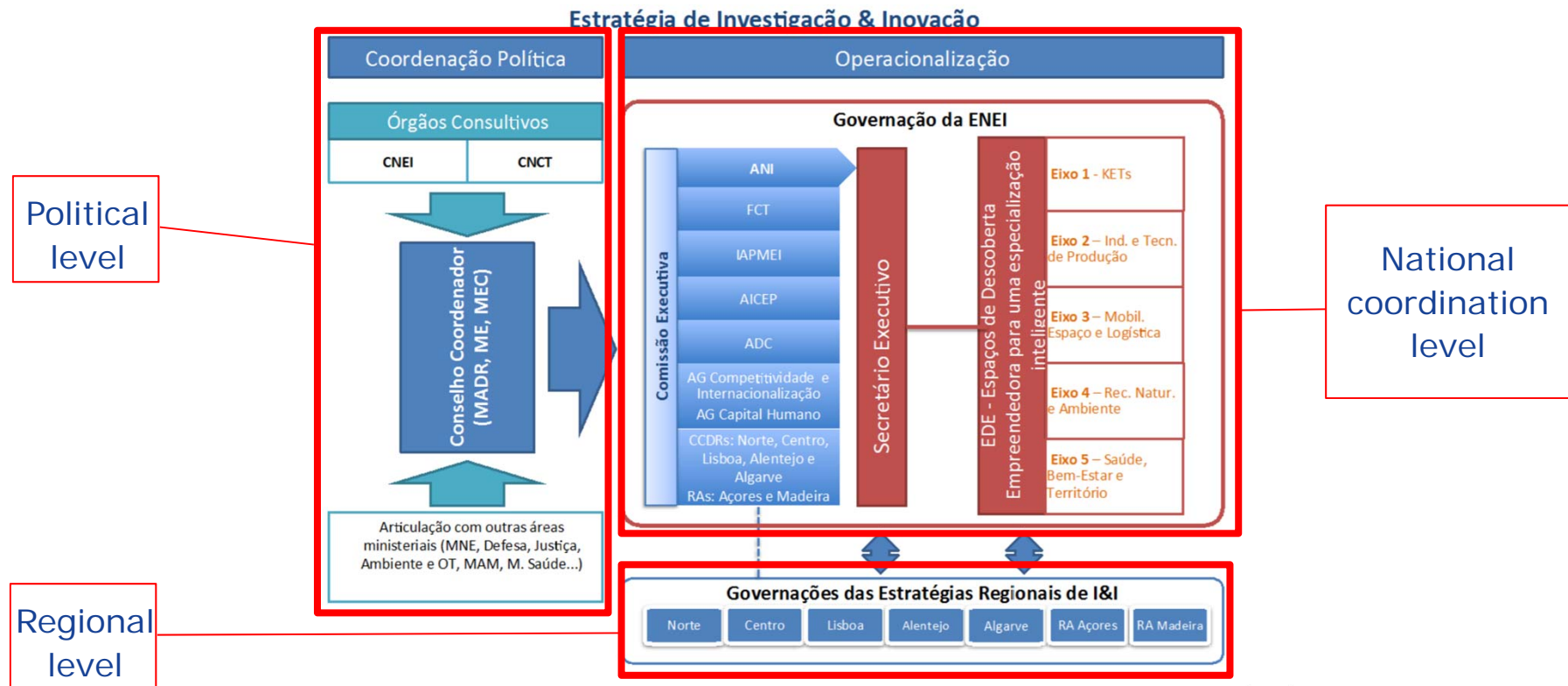
Governance and stakeholders involvement

Governance and stakeholders involvement: National and multi-level governance



Source: Implementation of Smart Specialisation Strategies in Portugal: An assessment (JRC technical report)

Governance and stakeholders involvement: Governing model



Source: Estratégia de Investigação e Inovação para uma Especialização Inteligente 2014-2020 (ENEI)



Governance and stakeholders involvement: Implementation indicators

	Regions							National
	Norte	Centro	Lisboa	Alentejo	Algarve	Madeira	Azores	
Date of creation of the Higher National/Regional Innovation Council	2017	2014	2014	2018	2016	2015	2017	2014
Nº of members in Higher Innovation Councils								CNEI CNCT
Total	48	26	N/A	40	78	14	13	25 20
Private sector	-	9		-	30	2	5	15 -
Public sector	-	17		-	48	12	8	10 -
Number of meetings of the Higher National/Regional Innovation Council	1	6	N/A	1	3	5	2	
Number of people working full-time in the Management team	-	3 FTE	2	1	2	1	6	1

Source: Implementation of Smart Specialisation Strategies in Portugal: An assessment (JRC technical report)

Governance and stakeholders involvement: Remarks

- Complex multi-level model
- Limited capabilities to implement (lack of experience, tools and resources)
- Significant stakeholders involvement at the beginning. At national level, ~500 entities participated in the initial consultation stage, 50% private companies. Initial efforts were not maintained, with some exceptions (Centro).
- No strong link between RIS3 and OPs (from the beginning).
- No thematic calls and no freedom to launch thematic focused calls at regional level (nor to create specific instruments)
- Implementation monitoring was mainly done at OP level (mostly, the same stakeholders).
- First strategy implementation evaluation report done at mid term. Makes sense but still with very limited results and impact.
- In the first years, EDP processes were more dynamic at regional level than at national level (proximity, flexibility)
- Multiple R&DI agendas and policies, thematic and sectorial (in parallel)

Governance and stakeholders involvement: Remarks

After the first years and the effort to implement the OPs, RIS3 and EDP starts to get more attention, both at national and regional level:

- At national level, ANI launched a set of events to revisit and revise the RDI agendas
- ANI also promotes Inter-regional meetings: a first step towards inter-regional coordination and collaboration.
- Regions created their regional innovation councils and are now updating their RIS3 strategies.
- ANI also supports regions in their processes to update RIS3 strategies
- With all this efforts, it's expected a better alignment and coordination between national and regional level and also inter-regions.
- ANI also developed a monitoring and evaluation framework specific for RIS3 (MONITOR RIS3 Project) that is now being used.
- ANI will present soon the second RIS3 monitoring and evaluation report.
- During implementation phase, EDP was mainly implemented with direct contacts with the stakeholders (for example, the clusters) and not so much using the formal channels.
- The involvement of national/regional organizations in European projects/initiatives had a strong contribution to the development of competences and experience in RIS3 related domains.

Innovation eco-system

Innovation eco-system: Main interface targeted programmes

The Portuguese innovation eco-system had a significant evolution during this programming period, resulting mainly from:

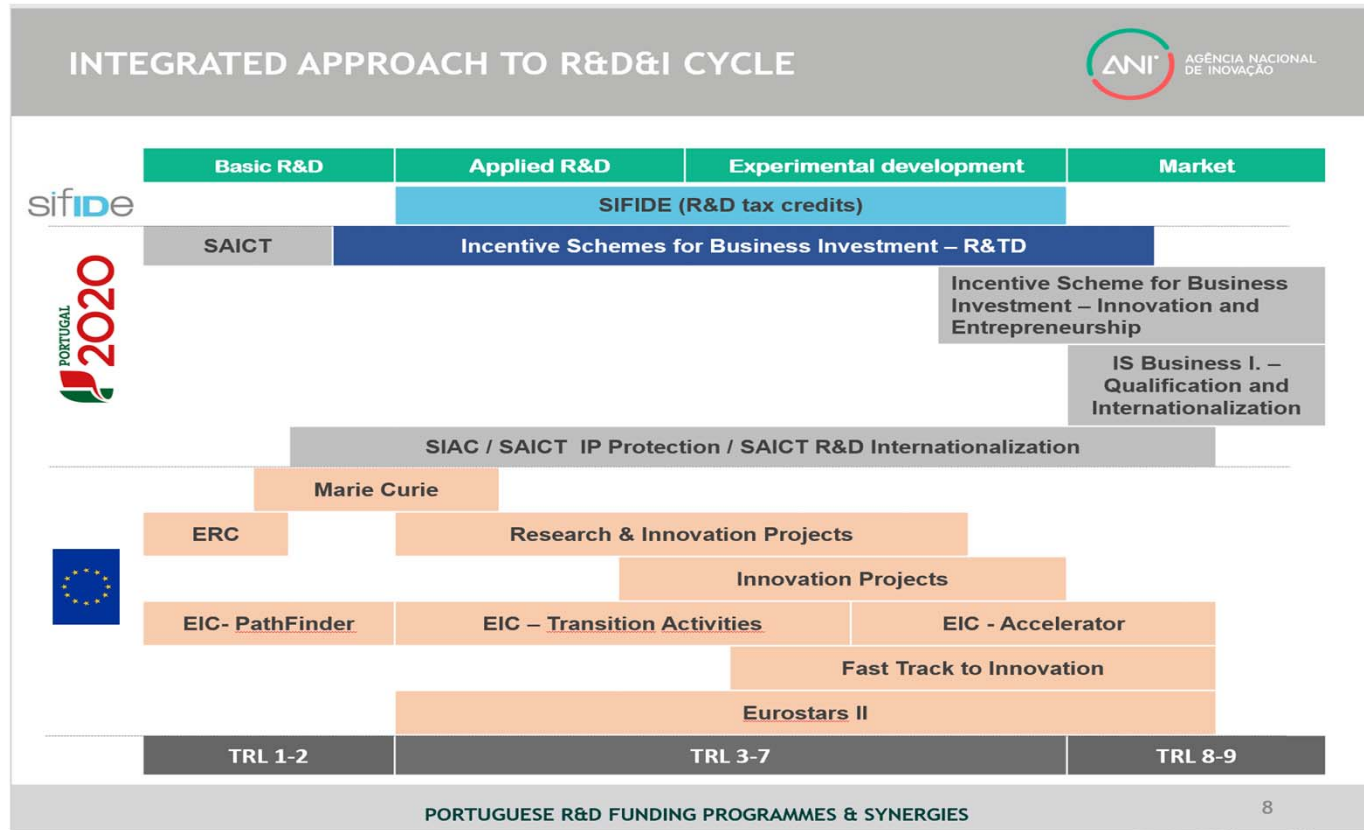
- Creation of the INTERFACE Programme, dedicated to increase the collaboration between academia and industry and the knowledge transfer and valorization. This programme included the recognition process and funding of 31 Technology Interface Centres (<https://www.ani.pt/en/knowledge-valorization/interface/interface-centres-cit/>)
- Creation of 26 “Laboratórios colaborativos” – collaborative laboratories: research and innovation organizations, promoted by business and academia (<https://www.ani.pt/en/knowledge-valorization/interface/collaborative-laboratories-colabs/>). Address both sectorial and technological domains, such as sea, energy, space, forests, digital transformation or environment.
- Recognition of 18 Clusters, representing the most relevant sectors of the Portuguese economy (<https://www.iapmei.pt/Paginas/Clusters-de-competitividade-reconhecidos-pelo-IAPM.aspx>)
- Creation of the START-UP Portugal initiative, to support entrepreneurs and investors (<https://startupportugal.com/>).

Innovation eco-system: main thematic programmes

The Portuguese innovation eco-system had a significant evolution during this programming period, resulting mainly from:

- Creation of the Portuguese Space Agency - PT SPACE (<https://ptspace.pt/>) and several initiatives related with space, namely the space-innovation eco-system in Santa Maria Island (Azores).
- INCODE 2030 programme, aiming at education and training for digital competences (<https://www.incode2030.gov.pt/en>).
- INDUSTRIA 4.0 programme, a comprehensive and large scale initiative for digitalization of the Portuguese economy, managed by COTEC Portugal (<https://cotecportugal.pt/pt/projects/industria-4-0-fase-i/>)

Innovation eco-system: new instruments

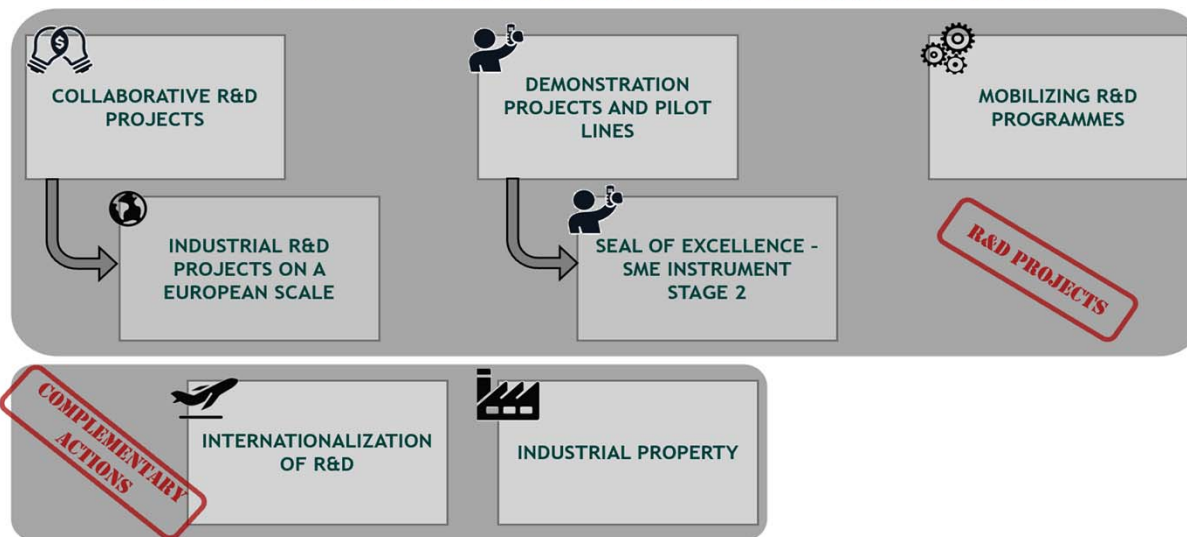


Innovation eco-system: new instruments

ACTION LINES MANAGED BY ANI



INCENTIVE SCHEMES FOR BUSINESS COMPANIES MANAGED BY ANI



PORTUGUESE R&D FUNDING PROGRAMMES & SYNERGIES

9



European Commission

Innovation eco-system: new instruments

DEMONSTRATION PROJECTS AND PILOT LINES



Projects that demonstrate advanced technologies and pilot lines



What are the specific aims?

Support for demonstrative projects of advanced technologies and pilot lines starting from **successfully completed R&D activities**.

Budget **67,25 M€**
Proposals **337**
Approved **78**
Investment **37,8 M€**
Support **20,4 M€**

Source: ANI (2014 - November 2018)

Show before a specialized audience and in a **real situation** the economic and technical advantages of new technological solutions that are **not sufficiently validated**, from the technological point of view, for commercial use.

Co-developed projects - Partnership between companies or between companies and other entities in the R&I System

Individual projects - Only one company

TRL 5 --- 8



Innovation eco-system: new instruments

COLABORATIVE R&D PROJECTS
INDUSTRIAL R&D PROJECTS ON A EUROPEAN SCALE



Promote national co-funding for Portuguese entities in European projects



What are the specific aims?

Warrant **synchronized national financing** in accordance with appropriate methodologies so as to leverage value creation when participating in international programmes and towards the internationalization of Portuguese companies.

Budget **15,5 M€**
Proposals **35**
Approved **23**
Investment **12,9 M€**
Support **8,9 M€**

Source: ANI (2018- November 2019)

Projects with Portuguese participating entities, promoted within the scope of the following European initiatives:

EUREKA Network (including EUREKA-CLUSTERS) and the Eurostars Programme.

TRL 2 --- 8

Open call

AAC 16/SI/2019 (by 13-11-2019) Fase II of VII

PORTUGUESE R&D FUNDING PROGRAMMES & SYNERGIES

12



Innovation eco-system: new instruments

DEMONSTRATION PROJECTS
SEAL OF EXCELLENCE - SME INSTRUMENT PHASE 2



Improving the synergies between EU funding for regional policy and for research



What are the specific aims?

Provide access to national funding for Seal of Excellence quality labeled projects which could **not secure funding** due to budgetary constraints but received high assessment scores in the demanding and independent evaluation process.

Budget **13,25 M€**
Applications **34**
Approved **17**
Investment **23,4M€**
Support **12,9M€**

Source: ANI (2018 - November 2019)

Demonstration projects and pilot lines:


Support for demonstrative projects of advanced technologies and pilot lines starting from successfully completed R&D activities.

TRL 5 - 8


Open call

AAC 05/SI/2019 (by 31-01-2020)

Innovation eco-system: new instruments

INTERNATIONALIZATION OF R&D 

Encouraging the participation of companies in European research and innovation programmes, in particular Horizon 2020



What are the specific aims?

- Supporting the internationalization of business R&D E RTD's
- Stimulating the companies' participation in international R&I networks.
- Support in the preparation and submission of applications for R&I programmes which are financed by the European Union.

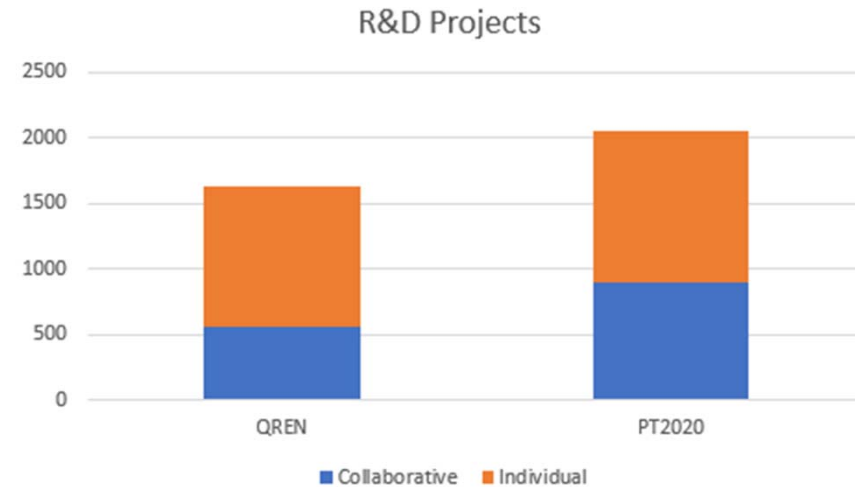
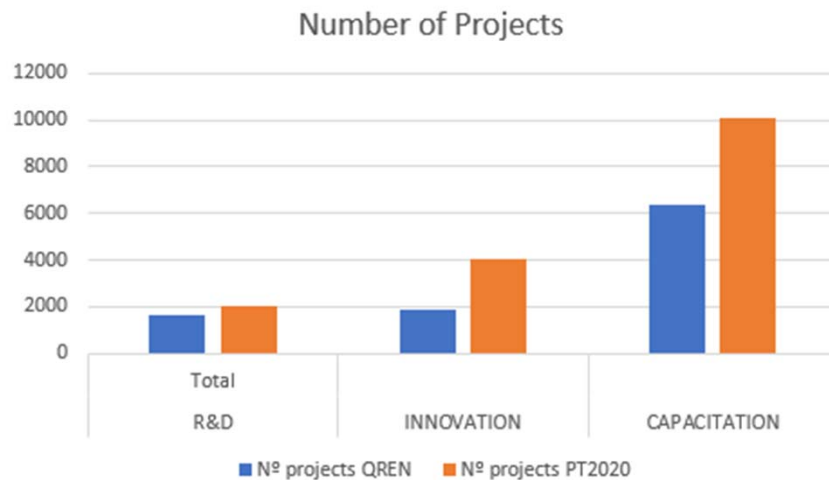
Budget 28,1 M€
Proposals 61
Approved 37
Investment 5,7 M€
Support 3,3 M€

Source: ANI (2014 - November 2018)

Open calls
AAC 02/SI/2019 and 02/SAICT/2019 (by 31-12-2019)

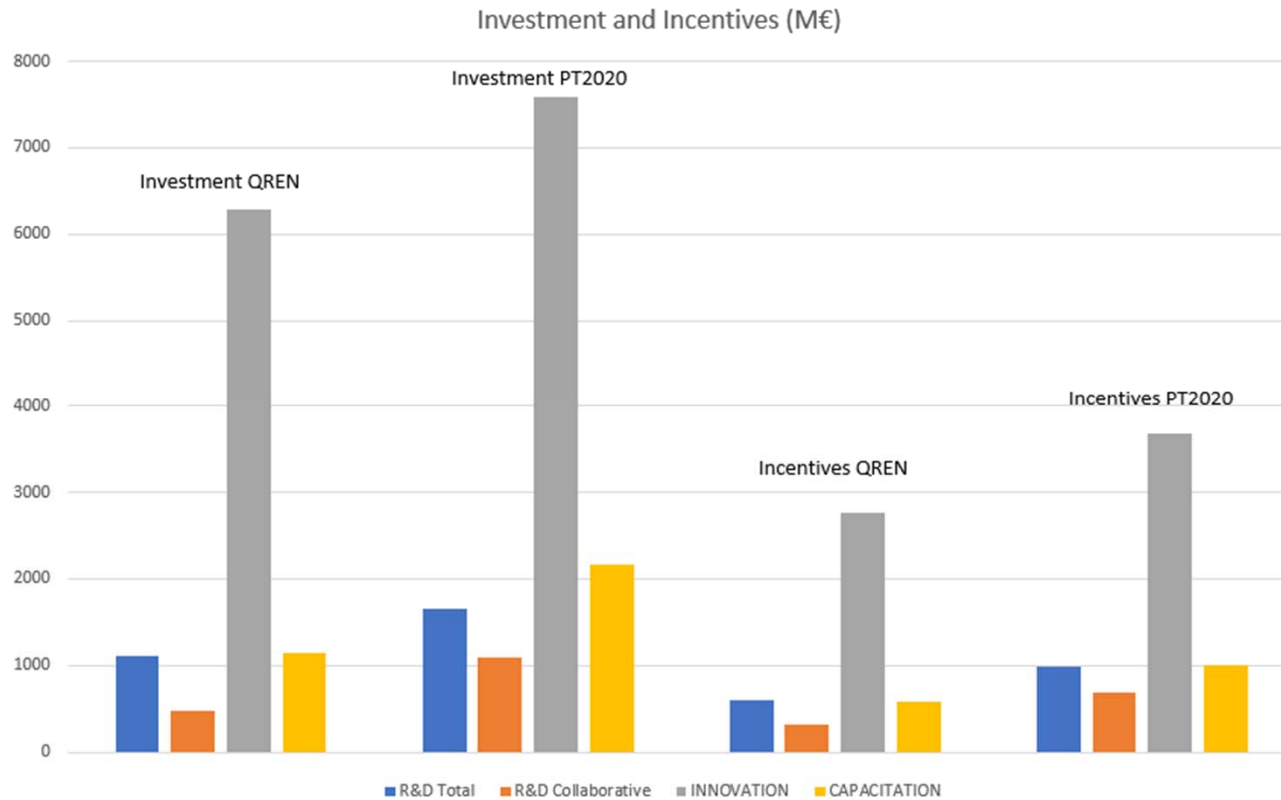
PORTUGUESE R&D FUNDING PROGRAMMES & SYNERGIES 18

Innovation eco-system: higher participation in PT2020

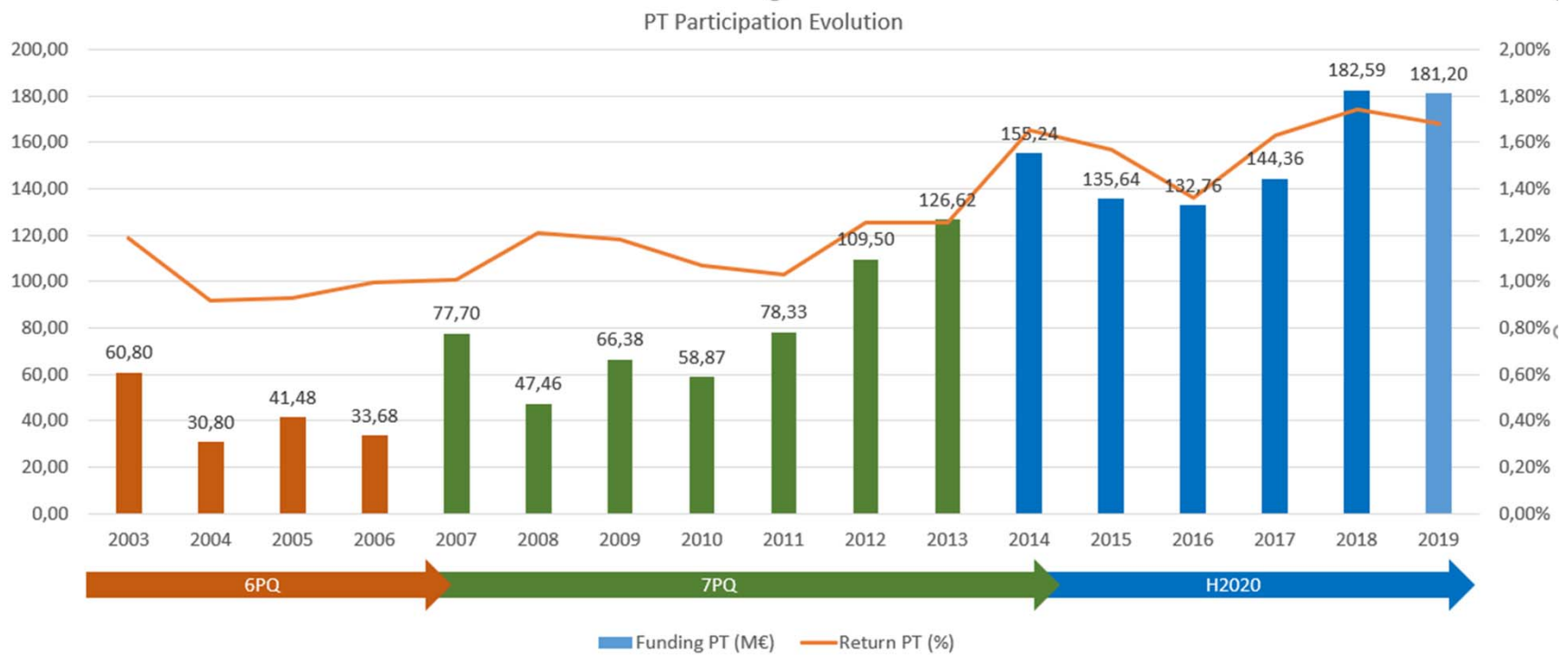


Higher % of collaborative R&D projects: 34%-44%

Innovation eco-system: higher participation in PT2020

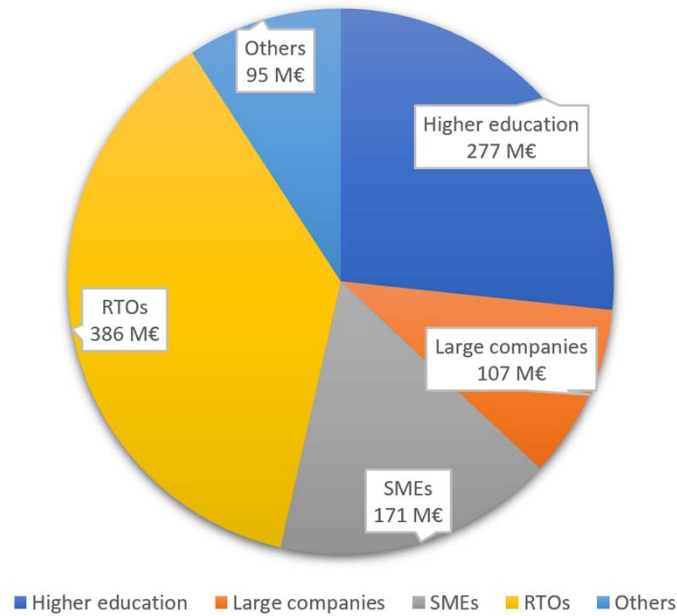


Innovation eco-system: higher participation in H2020

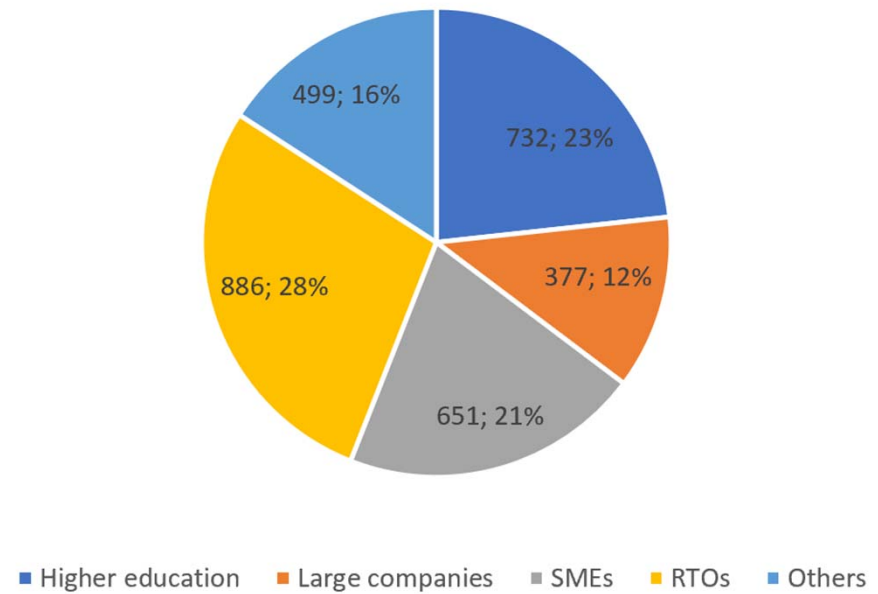


Innovation eco-system: higher participation in H2020

Budget



Number of participations



Innovation eco-system: highlights

The Portuguese innovation eco-system had a significant evolution during this programming period, resulting mainly from:

- There was a significant increase in the number of companies investing in R&D and innovation, including SMEs and also start-ups. And also participating in/benefiting from the supporting programmes (mostly ERDF + fiscal incentives).
- There was also an increase in the number of collaborative projects, involving business and academia/RTOs
- There was a significant increase in the participation of companies in the H2020 programme, namely SMEs.
- Consortia became more complex, integrated, diversified and complete

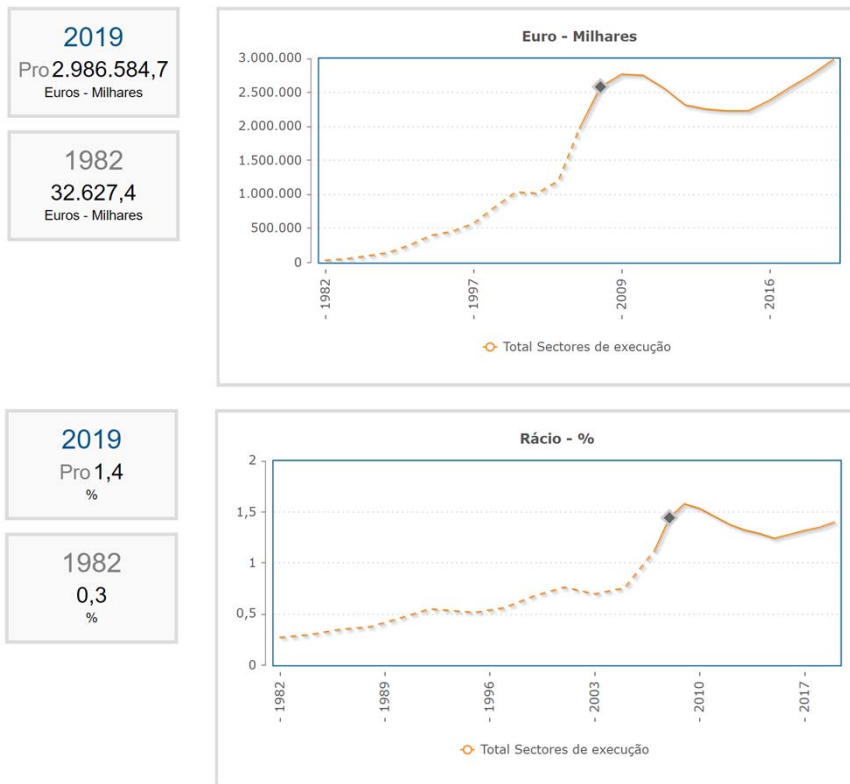
Results and impact

Results and impact: some macro-economic indicators

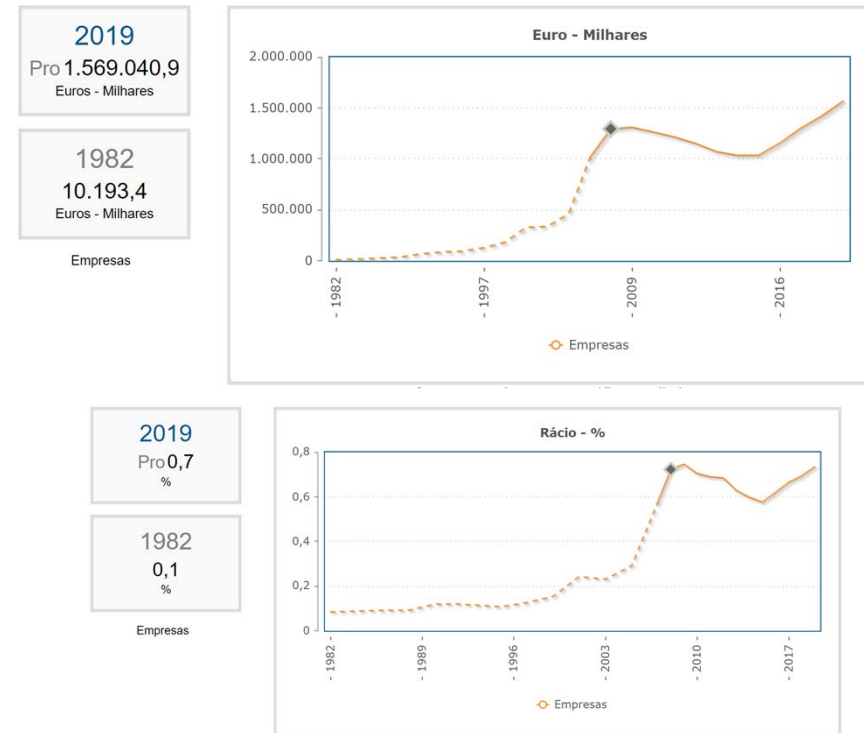
Indicator	Unit	2005	2010	2014	2015	2016	2017	2018	2019
GDP (M€ curr. prices)	M€ current prices)	158 553	179 611	173 054	179 713	186 490	195 947	205 184	213 301
GDP per person employed	€	31 413	36 667	38 461	39 509	40 495	41 195	42 161	43 415
Gross Value Added	M€ current prices)	137 486	157 971	151 136	156 517	161 993	169 642	177 466	184 531
Exports of Goods and Services	M€ current prices)	43 255	54 386	70 350	73 838	75 685	84 217	89 550	93 477
Exports of Goods and Services	% GDP curr. prices	27,3	30,3	40,7	41,1	40,6	43,0	43,6	43,8
Inward FDI: net values	M€ current prices)	1 797	2 199	3 686	6 877	4 577	6 669	5 753	7 356
Unemployment Rate (% labour force)	% labour force	7,6	10,8	13,9	12,4	11,1	8,9	7,0	6,5
Youth Unemployment Rate Aged 15-24 (% labour force)	% labour force	16,2	22,8	34,8	32,0	28,0	23,9	20,3	18,3

Results and impact: some macro-economic indicators

Total R&D investment evolution

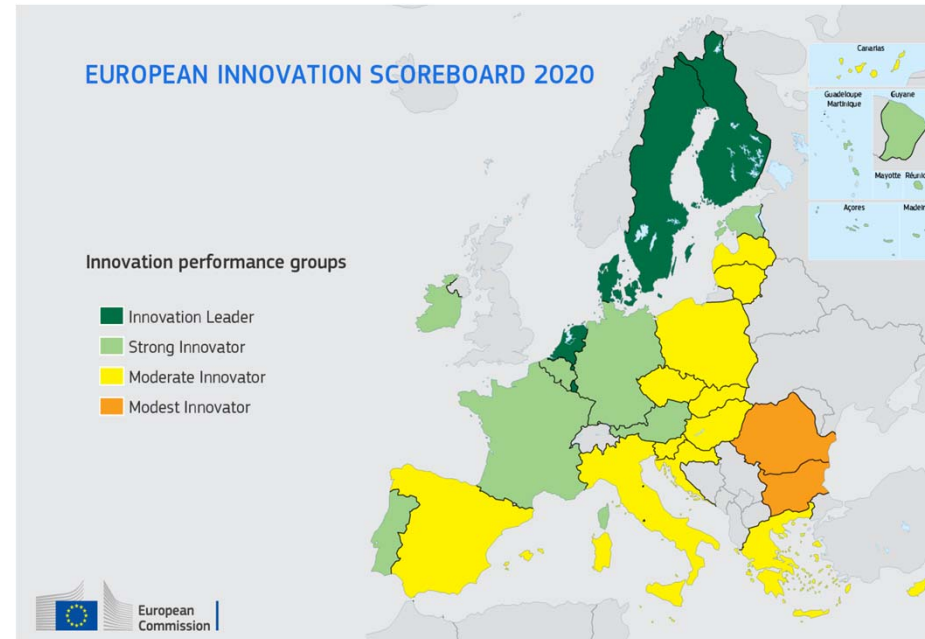
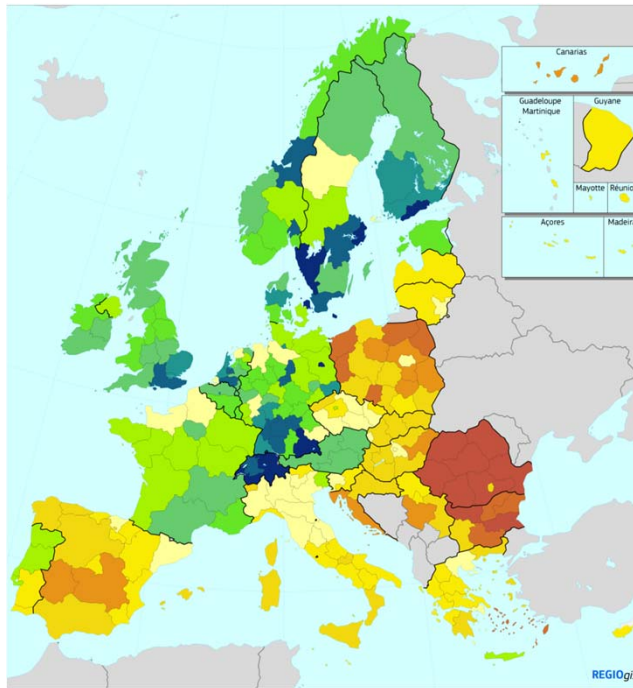


Business R&D investment evolution



Results and impact: innovation boost

First, three regions (Norte, Centro and LVT), in 2019, and then the entire country, in 2020, moved from moderate to strong innovators group in the European Innovation Scoreboard



Results and impact: innovation boost

Comparison between companies that benefited from Structural Funds and others similar (QREN 2007-2014):

IAPMEI

Impacto na competitividade das empresas

As empresas que beneficiaram de incentivos, possuem em média:



quando comparadas com empresas idênticas que não acederam aos incentivos

Fonte: Avaliação do Impacto dos Fundos Europeus Estruturais e de Investimento (FEEI) no Desempenho das Empresas

Results and impact: innovation boost

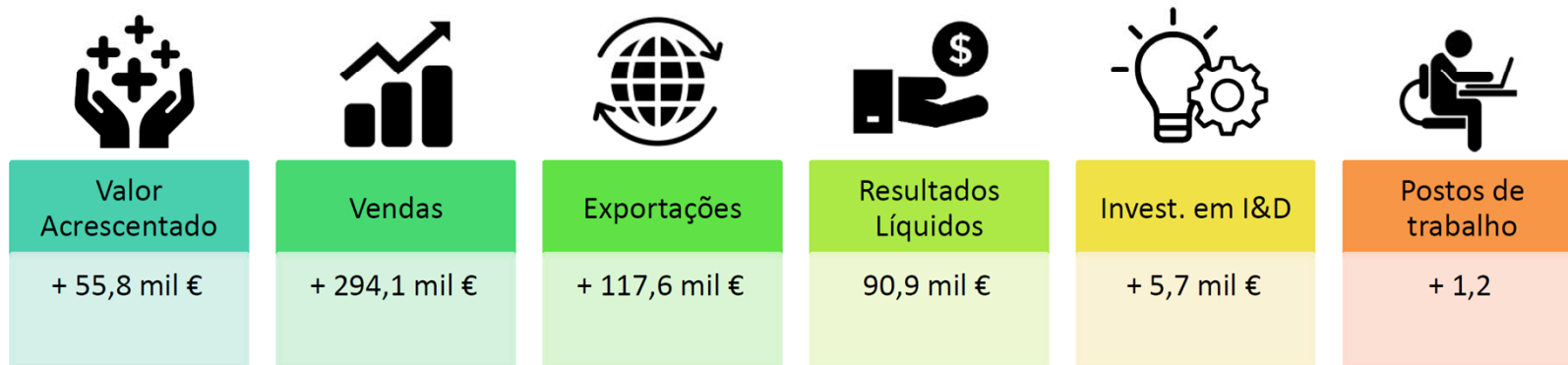
2 years after investment started, 100.000 euros of incentive generated (QREN 2007-2014):

IAPMEI

Eficácia dos Incentivos na competitividade das empresas

Fonte: Avaliação do Impacto dos Fundos Europeus Estruturais e de Investimento (FEEI) no Desempenho das Empresas

Até ao 2º ano após o ano de início do investimento, 100 mil euros de incentivo originam:



Results and impact: some highlights

- Regions and later the country moved to the Strong Innovators group. This was due mainly to innovative SMEs
- There was a significant increase in the number of start-ups and the first unicorns emerged (FARFETCH; OUTSYSTEMS; TALKDESK).
- A significant number of foreign companies invested in Portugal, moving from labor intensive to knowledge intensive sectors and/or activities (from “manufacturing” into engineering and R&D)

Stay in touch



EU Science Hub: ec.europa.eu/jrc



Twitter: [@EU_ScienceHub](https://twitter.com/EU_ScienceHub)



Facebook: [EU Science Hub - Joint Research Centre](https://www.facebook.com/EU_Science_Hub_-_Joint_Research_Centre)



LinkedIn: [Joint Research Centre](https://www.linkedin.com/company/joint-research-centre)



YouTube: [EU Science Hub](https://www.youtube.com/EU_Science_Hub)