



Management challenges for Monitoring and Data collection/usage - ERDF Luxembourg

EIPA – Luxembourg 15th of June 2023









Ministry of Economy - Luxembourg

Presentation of the ERDF Managing Authority

Address:

- Ministry of Economy
- Direction de la Politique Régionale
- 19-21, boulevard Royal L-2449 Luxembourg

ERDF - Managing Authority Team in Luxembourg:

- 1 head of the unit
- 2 project managers
- 1 jurist
- 1 secretary

Bob SIMON – Member of the ERDF Managing Authority since 2002

- 1997-1999 Objective II
- 2000-2006 Objective II
- 2007-2013 Objective "Regional Competitiveness and Employment"
- 2014-2020 Objective "Investing in Growth and Employment"
- 2021-2027 Objective "Investing in a smarter and greener Europe"

Member of the Evaluation Network & Inform EU Network "Communication Officer for ERDF"





ERDF Managing Authority - Luxembourg

Agenda/Topics:

- 1. Presentation of the 2014-2020 ERDF programme
 - Axis, indicators, performance framework, data collection
 - Data collection and interpreting data for reporting
 - Programme amendments
 - Closure of operational programme
- 2. Presentation of the 2021-2027 ERDF programme
 - Axis and Specific Objectives
 - Indicators
 - Problems faced with
 - Negotiation & approvement of OP
- 3. Questions & Answers





1) Presentation of the 2014-2020 ERDF programme

- Programme adoption by European Commission: 15th of December 2014
- Total cost: 48,2 mio EUR (ERDF) + 69,7 mio EUR for REACT-EU (Recovery Assistance for Cohesion and the Territories of Europe)
- > ERDF contribution: 19,5 mio EUR + 69,7 mio EUR for REACT-EU
- Cofinancing rate : 40% (ERDF) + 100% (REACT-EU)
- > Territorial eligibility: national territory of Luxembourg (no zoning)
- > Financing form: non reimbursable aid
- Beginning of eligibility: 01.01.2014
- > End of eligibility: 31.12.2023
- 2 thematic priority axis & 1 REACT-EU axis



Presentation of the 2014-2020 ERDF programme

Axis	Thematic and Specific Objectives	ERDF Amount
Axis 1	Strengthening research, technological development and innovation by a) enhancing research and innovation (R&I) infrastructure and capacities to develop R&I excellence b) promoting business investment in R&I, developing links and synergies between enterprises, research and development centres	9,2 mio EUR
Axis 2	Supporting the shift towards a low-carbon economy in all sectors by a) promoting the production and distribution of energy derived from renewable sources b) supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector c) The promotion of sustainable multimodal urban mobility	9,2 mio EUR
Axis 3	ERDF - Technical Assistance	1,1 mio EUR
Axis 4	REACT — EU (crisis response and crisis repair measures delivered through the Coronavirus Response Investment Initiative and constituting a bridge to the long-term recovery plan)	69,7 mio EUR

Total 89,2 mio EUR



Presentation of the 2014-2020 ERDF programme

	LIST OF PROJECTS (26 +	2)	TOTAL COST	ERDF AMOUNT (40% of TC)
2016-01 - 1	Géothermie profonde à Dudelange	Fonds du logement	0,50 €	0,20 €
2016-01 - 2	Digital Twin	Université de Luxembourg	0,64 €	0,26 €
2016-01 - 3	Lycée pour professions de santé (projet pilote énergétique)	MDDI/Adm. Des Bâtiments publics	2,53 €	1,01 €
2016-01 - 5	Attract	Luxinnovation GIE	3,50 €	1,40 €
2016-01 - 6	Data Analytics Platform	LIST	6,36 €	2,54 €
2016-01 - 8	MyEnergy infopoints	MyEnergy GIE	0,91€	0,36 €
2016-01 - 10	Transition énergétique durable sur les foires	MyEnergy GIE	0,83 €	0,33€
2016-01 - 11	Shared-Space Dudelange	Ville de Dudelange	2,42 €	0.97 €
2016-01 - 12	Confocal Microscopy Imaging Facility	Luxembourg Institute of Health	0,43 €	0,17€
2016-01 - 13	Val. de copeaux de bois de déchets biodégradables	Minettkompost	0.65 €	0,26€
2016-01 - 14	BIM	CRTI-B GIE	0,45 €	0,18€
2017-02 - 15	ECON4SD	Université de Luxembourg	3,10 €	1,24 €
2017-02 - 16	Laser Technology Competence Center – Phase III	Université de Luxembourg	1,03 €	0,40 €
2017-02 - 17	Luxembourg Science Center	Luxembourg Science Center	1,50 €	0,60 €
2017-03 - 20	Electrification du réseau des autobus	Ville de Luxembourg	8,75 €	3.50 €
2017-03 - 21	Multimodal Electrified Infrastructure Planning - MERLIN	Université de Luxembourg	0,89 €	0,35 €
2017-03 - 22	Building up cutting-edge expertise in ultra-fast laser spectroscopy in Luxembourg – LUX-ULTRA-FAST	Université de Luxembourg	1,96 €	0,78 €



Presentation of the 2014-2020 ERDF programme

	LIST OF PROJETS (26 +	- 2)	TOTAL COST	FEDER AMOUNT (40% du CT)
2018-04 - 23	Infopoint Myenergy goes digital	MyEnergy	2,60 €	1, 04 €
2018-04 – 24	Computational and Data Engineering Hub	Université de Luxembourg	0,70 €	0,28€
2018-04 – 26	Luxembourg clinical and translational research centre	Centre Hospitalier Luxembourg	1,23 €	0,49 €
2018-04 – 27	Microscope High Content Screening	Luxembourg Institute of Health	0,75 €	0,30 €
2018-04 – 28	Prospact	Luxinnovation	2,00€	0,80 €
2019-05 – 29	Pilot Streetlighting 2.0	Parc naturel de l'Our	0,51€	0,20€
2019-05 – 30	Solstice	Université de Luxembourg	0,60 €	0,24 €
2019-05 – 31	Centrale de cogénération Biomasse	Commune de Mamer	5,61 €	1,50 €
2019-05 – 32	Place F.Kinnen – Eclairage public urbain intelligent et bornes hydrauliques au centre-ville (Shared space)	Ville de Dudelange	0,66 €	0,26 €
	REACT	T-EU		
2020-06-34	COVID-19 Vaccination	Ministère de la Santé	34,67 €	34,67 €
2021-07-35	Électrification du réseau des autobus RGTR	Ministère des Transports	35,00 €	35,00 €
 14 projects in axis 1 (Research & Innovation) – 105% of budget covenanted 12 projects in axis 2 (Energy) – 123% of budget covenanted 2 projects in REACT-EU (Covid-19) – 100% of budget covenanted 				



Output indicators – Axis 1 of OP 2014-2020

Axis	Output indicator	Unit	Fulfilled (31.12.2022)	Final target (2023)
	Number of researchers working in improved research infrastructure facilities	Researchers	107	60
1 (Research &	Number of enterprises cooperating with research institutions	Enterprises	111	70
Innovation)	Number of enterprises supported to introduce new to the firm products	Enterprises	5	4



Output indicators – Axis 2 of OP 2014-2020

Axis	Output indicator	Unit	Fulfilled (31.12.2022)	Final target (31.12.2023)
	Additional capacity of renewable energy production	MW	3	5
2	GHG reduction – estimated annual decrease of GHG (Greenhouse Gas Emissions)	Tons of CO2eq.	1000	6000
2 (Sustainable Energy, energy efficiency & sustainable Mobility)	Number of dwellings getting expertise in energy efficiency to improve energy consumption and category of energy	dwellings	6.333	2.500
	Energy efficiency: decrease of annual primary energy consumption of public buildings	kWh/year	321.000	150.000
	Numbre of projects in sustainable multimodal urban mobility	number	3	2



Output indicators – REACT-EU of OP 2014-2020

Axis	Output indicator	Unit	Fulfilled (31.12.2022)	Final target (31.12.2023)
	Value of vaccination costs	EUR	23.016.122	34.437.379
	Refrigerating infrastructure for the injection against COVID-19	Refrigeration units	69	45
REACT- EU	Doses of purchased injections	Doses	3.372.567	3.960.490
	Vaccinated persons due to EU-support	Persons	509.212	485.000
	GHG reduction – estimated annual decrease of GHG (Greenhouse Gas Emissions)	Tons of CO2eq.	0	5.500



Result indicators – Axis 1 of OP 2014-2020

Axis	Result indicator	Unit	Value of reference (year)	Fulfilled (31.12.2022)	Final target (2023)
1 (Research &	Number of jobs in public research (Personnel de R&D incluant chercheurs et techniciens assistants)	Jobs	1.564 (2012)	2.501	1.800 (+70 ERDF)
Innovation)	Number of SME implicated in research and innovation	Number SMEs	19.938 (2013)	26.650	24.000 (+300 ERDF)



Result indicators – Axis 2 of OP 2014-2020

Axis	Result indicator	Unit	Value of reference (year)	Fulfilled (31.12.2022)	Final target (2023)
	Final energy consumption rate providing from renewable energy production	%	2,90 (2012)	15,6%	11% (+2,9% ERDF)
(Sustainable	Reduction of number of public buildings to improve energetically	Public buildings	810 (2013)	764	785 (-2 ERDF)
Energy, energy efficiency & sustainable Mobility)	Reduction of number of dwellings to improve energetically	Dwellings	117.000 (2013)	104.290	109.000 (-50 ERDF)
	Number of persons using sustainable urban mobility infrastructures	Persons	135.610 (2013)	162.646	215.000 (15.000 ERDF)



Result indicators – REACT-EU of OP 2014-2020

Axis	Result indicator	Unit	Fulfilled (31.12.2022)	Final target (2023)
REACT-EU	Rate of anti-COVID-19 herd immunity	%	82	85
	Daily number of persons using electric RGTR buses	Persons	0	21.000



ERDF - Performance framework - OP 2014-2020

Axis	Indicator	Unit	Milestones 2018	Fulfilled 2018	Final target (2023)
1: Strengthening research,	Number of researchers working in improved research infrastructure facilities	Researcher	15	22	60
technological development and innovation	Number of enterprises cooperating with research institutions	entreprises	25	32	70
	Certification of eligible expenditures - axis 1	Financial indicator	5.923.668 € 35%	7.092.064,33 €	22.914.949€ 100%
2: Supporting the shift towards a low-	Number of dwellings getting expertise in energy efficiency to improve energy consumption and category of energy	dwellings	1850	3726	2500
carbon economy in all sectors	Numbre of projects in sustainable multimodal urban mobility	number	1	1	2
	Certification of eligible expenditures - axis 2	Financial indicator	5.923.668 € 35%	5.736.417,08 € (97%)*	22.914.949 € 100%

^{*}Intermediate value 2018 = rate of 97%. For your information, regarding article 6.2 of regulation (UE) n°215/2014 of the Commission and by way of derogation, where the performance framework includes three or more indicators, the milestones or targets of a priority may be deemed to be achieved if all indicators except for one achieve 85% of their milestone values by the end of 2018 or 85% of their target value by the end of 2023.



Data collecting & interpreting data for reporting

Yearly data collecting from different sources :

- Beneficiaries -> send of questionnaire by MA for annual reporting
- STATEC Institut national de la statistique et des études économiques
- EUROSTAT European Statistical Office
- Ministry of Economy (in charge of private research)
- Ministry of higher Education and Research (in charge of public research)
- Ministry of Energy and territorial development planning

Interpreting data for reporting:

- Checks and audits done by Managing Authority (documents, lists, pay slips, reports, on the spot, etc...)
 - Data reliability/statistically valid & resilient -> importancy to check official « source »
 - Data availability (just in time) -> delay problem





Programme amendments ERDF OP 2014-2020

4 amendments of ERDF OP 2014-2020 done by MA:

- 1) Modification of performance framework -> replacement of common output indicator CO31 by a specific indicator + modification of final target 2023 of financial indicators (07.03.2018)
- 2) Modification of performance framework -> miscalculation of the milestones of the financial indicators of axis 1 and 2 (ERDF budget absorption -> n+3 rule) (10.08.2018)
- 3) Addition of the new axis REACT-EU « crisis response and crisis repair measures delivered through the Coronavirus Response Investment Initiative and building a bridge to the long-term recovery plan » and addition of the Technical Assistance axis for REACT-EU. -> ERDF-budget supplement of 69.687.379 EUR € − REACT-EU cofinancing rate of 100% for axis REACT-EU and 50% for TA REACT-EU + Updating members of Managing, Certification and Audit Authorities. (04.10.2021)
- 4) Modification of REACT-EU axis -> cancel of a planned project called "Large Scale Testing Phase 2" -> prudence and preventive measure (public procurement recourse of a bidder) (04.02.2022)



Closure of ERDF programme 2014-2020

Still need to do: (Eligibility until 31.12.2023)

- Collect project-data for final report (output and result indicators)
- Collect statistics of STATEC, EUROSTAT, Government, Ministries, etc...
- Audit expenditures of still running projects (end of eligibility: 31.12.2023) for the final submission of payment claim (SFC2014)
- Evaluation of the REACT-EU initiative 2 projects (-> 31.12.2023)
- Publish results and conclusion of evaluation and final report (-> 30.06.2024)
- Get final settlement from EC to MS 3 months after submission of final report & payment claim



2) Presentation of ERDF programme 2021-2027

Axis	Specific Objectives	ERDF Amount
SO1	Smarter Europe (i) developing and enhancing research and innovation capacities and the uptake of advanced technologies; (ii) reaping the benefits of digitisation for citizens, companies, research organisations and public authorities; (iii) enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments;	9,03 mio EUR
SO2	 Greener Europe (i) promoting energy efficiency and reducing greenhouse gas emissions; (ii) promoting renewable energy in accordance with Directive (EU) 2018/2001, including the sustainability criteria set out therein; 	4,24 mio EUR
JTF	Juste Transition Fund - aims to provide support to territories facing serious socio-economic challenges arising from the transition towards climate neutrality (d) investments in the deployment of technology as well as in systems and infrastructures for affordable clean energy, including energy storage technologies, and in greenhouse gas emission reduction (e) investments in renewable energy in accordance with Directive (EU) 2018/2001 of the European Parliament and of the Council (17), including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty (f) investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure	5,21 mio EUR
AT	Technical Assistance (6% OP ERDF + 4% JTF) - Preparation, monitoring and implementation	1,20 mio EUR
	TOTAL:	19,68 mio EUR



Chronology of negotiation 2021-2027 with EC

Publication of EU regulations n°2021/1060 (Common provisions), n°2021/1058 (ERDF) & n°2021/1056 (JTF): -> **24 June 2021**

- 1st draft of OP: 6 August 2021
- 1st draft of PA: 7 December 2021
- 1st draft of JTFP: 23 July 2021
- Last draft of PA sent to EC: 22 November 2022 (4th version)
- Last draft of OP sent to EC: 8 December 2022 (4th version)
- Last draft of JTFP sent to EC: 8 December 2022 (7th version)
- Approvement of PA by EC: 7 December 2022
- Approvement of OP by EC: 16 December 2022
- Approvement of JTFP by EC: 16 December 2022
- 1st call of projects: 30.03.2023 12.05.2023



SO1 : SMARTER EUROPE:

1) Industry 4.0 – Manufacturing sector – materials et surfaces

Projets in relation with: composite materials, nanomaterials, high performance steel, sustainable and recycable materials, glass, timber, concrete and polymers.

Potential beneficiaries:

<u>Materials Research and Technology Department (MRT)</u> from <u>Luxembourg Institute of Science and Technology</u> (LIST) - (molecular analyses of the structure and surfaces of materials, resistance tests and accelerated ageing tests, etc...)

<u>Physics and Materials Science Research Unit</u> of the <u>University of Luxembourg</u>; (ex: investigate the properties of new promising materials such as nanomaterials, polymers, bio-molecules and composite materials)



2) BIO-Technologies – Science and technology of health

Projects in relation with: personalised health care, molecular diagnostic, bio and medical computer science, developing new tools in diagnostics and therapy

Potential beneficiaries:

<u>Luxembourg Centre for Systems Biomedicine (LCSB)</u> of the University of Luxembourg: understanding principal mechanisms of disease pathogenesis: Neurodegenerative diseases like Parkinson's disease

<u>Luxembourg Institute of Health (LIH), Centre Hospitalier de Luxembourg (CHL)</u>, active in specialised biomedical research systems in relation with virology, oncology, infectiology and immunology.

<u>IBBL (Integrated BioBank of Luxembourg)</u> – Department of LIH, disposal of high quality biospecimens with associated data



3) ICT – Information and Communication Technologies

Projects in relation with: stock of numeric content, cloud computing, treatment and management of megadata, electronic payment solutions, high performance computing (HPC), green ICT, etc...

Potential beneficiaries:

University of Luxembourg dealing with numeric communication, treatment of information, developing of robotic systems, algorithmic information theory and the research on methods and tools, etc...

The department <u>« ICT for Innovative Services »</u> of the **LIST** is dealing with: innovative solutions in financial services, Fintech; Industry 4.0 – digital transformation, data analytics - HPC, Building Information Modelling....



4) Eco-Technologies

Projects in relation with: clean technology solutions, renewable energy, waste treatment, water treatment, eco-construction, etc...

Potential beneficiaries:

<u>Environmental Research and Innovation Unit (ERIN)</u> of the **LIST** doing research by examining, monitoring, evaluating, using and preserving natural and sustainable resources

<u>University of Luxembourg</u> dealing with cleanTech, in particular in the photovoltaic, renewable and environment sectors

Neobuild Innovation Center, laboratory dealing with innovative sustainable construction



5) Enhancing sustainable growth and competitiveness of SMEs

Potential beneficiaries:

Supporting Luxinnovation, Luxembourg National Agency of Innovation dealing with:

- Creation of public-private partnerships involving SMEs, University of Luxembourg or Public Research Centers, internationalisation, promoting and managing european programmes like: European Space Agency (ESA), Horizon Europe 2027, Framework programme for research (FP7), Competitiveness and Innovation Framework Programme (CIP), etc...;
- Development of pole of excellence and clusters in «3S» sectors of national economic importance
- Development of strategies and innovative processes in the domains of energy efficiency, renewable energy and digital solutions for SMEs



SO2 – GREENER EUROPE

- (i) Promoting energy efficiency and reducing greenhouse gas emissions
- (ii) promoting <u>renewable energy</u> in accordance with Directive (EU) 2018/2001, including the sustainability criteria set out therein

Potential beneficiaries:

- Klima-Agence GIE (MyEnergy GIE), the national Energy Agency dealing with energy consulting for dwellings and developing energy efficient solutions for SMEs
- Municipalities
- Inter-communal Syndicates
- Public Building Administration Ministry of Sustainable Development and Infrastructures



Just Transition Fund: 3 specific objectives

- (d) investments in the deployment of technology as well as in systems and infrastructures for affordable clean energy, including energy storage technologies, and in greenhouse gas emission reduction:
 - Project with Arcelor-Mittal (steel-industry) & Differdange construction of heat recovery city network system
- (e) investments in renewable energy in accordance with Directive (EU) 2018/2001 of the European Parliament and of the Council (17), including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty;
 - Construction of an energy autonomous residential quarter in Differdange
- (f) investments in **smart and sustainable local mobility**, including decarbonisation of the local transport sector and its infrastructure;
 - Electrification of TICE-Buses Network in the South of Luxembourg

Written and in charge of: Ministry of Energy and Territorial Development Planning



Output Indicators ERDF 2021-2027 – Axis 1

Strategic Objective	Specific Objective	ID	Output Indicator	Unit	Milestones 2024	Final targets (2029)
	i) developing and enhancing research and innovation capacities and the uptake of advanced	RCO06	Researches working in supported research facilities	Equivalents temps plein	15	60
	technologies	RCO08	Nominal value of research and innovation equipment	EUR	2.000.000	9.000.000
	ii) reaping the benefits of digitisation for citizens, companies,	RCO14	Public institutions supported to develop digital services, products and processes	Public institutions	1	4
Smarter Europe	Smarter research organisations	RCO74	Population covered by projects in the framework of strategies for integrated territorial development	Persons	6.150	6.800
	iii) enhancing sustainable	RCO103	High growth entreprises supported	Enterprises	8	25
	growth and competitiveness of SMEs and job creation in SMEs, including by productive investments	RCO04	Entreprises with non- financial support	Enterprises	15	45



Output Indicators ERDF 2021-2027 – Axis 2

Strategic Objective	Specific Objective	ID	Output indicator	Unit	Milestone 2024	Final targets (2029)
	i) promoting energy efficiency and reducing greenhouse	RCOSP01 (Indicateur spécifique 01)	Number of dwellings getting expertise in energy efficiency to improve energy consumption and category of energy	Dwellings	600	2.000
Greener Europe	gas emissions	RCO19	Public buildings with improved energy performance	Square metres	0	10.000
Ευιόμε	ii) promoting renewable energy in accordance with Directive (EU) 2018/2001, including the sustainability criteria set out therein	RCO22	Additionnal production capacity for renewable energy (of which: electricity, thermal)	MW	0	4



Output indicators ERDF 2021-2027 – JTF

Strategic objectifve of FTJ	Specific Objective	ID	Output indicator	Unit	Milestones 2024	Final targets (2029)
	d) investments in the deployment of technology as well as in systems and infrastructures for affordable clean energy, including energy storage technologies, and in greenhouse gas emission reduction	RCO22	Additional production capacity for renewable energy	MW	0	3
JTF	e) investments in renewable energy in accordance with Directive (EU) 2018/2001 of the European Parliament and of the Council (17), including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty	RCO18	Dwellings with improved energy performance	Dwellings	0	25
	f) investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure	RCO57	Capacity of environmentally friendly rolling stock for collective public transport	Passengers	170	510



Result Indicators ERDF 2021-2027 – Axis 1

Strategic Objective	Specific Objective	ID	Result indicator	Unit	Base or refer ence value	Year of refere nce	Final targets (2029)
	i) developing and enhancing research and innovation capacities and the uptake of advanced technologies	RCR102	Research jobs created in supported entities	Annuel FTEs	0	2021	30
Smarter Europe	ii) reaping the benefits of digitisation for citizens, companies, research organisations and public authorities	RCR11	Users of new and upgraded public digital services, products and processes	Annual users	0	2021	30.000
	iii) enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments	RCR17	New enterprises surviving in the market	Enterprises	0	2021	12



Result Indicators ERDF 2021-2027 — Axis 2

Strategic Objective	Specific Objective	ID	Result indicator	Unit	Base or reference value	Year of refere nce	Final targets (2029)
	i) promoting energy efficiency and reducing greenhouse gas emissions		Annual primary energy consumption (of which: dwellings, public buildings)	MWh/year	8400	2021	5800
Greener Europe		RCR29	Estimated greenhouse emissions	Tons of CO2eq/year	1.900	2021	1.300
	ii) promoting renewable energy in accordance with Directive (EU) 2018/2001, including the sustainability criteria set out therein	RCR31	Total renewable energy produced (of which: electricity, thermal)	MWh/year	0	2021	200



Result indicators ERDF 2021-2027 – JTF

Strategic Objective of JTF	Specific Objective	ID	Result Indicator	Unit	Base or refer ence valu e	Year of reference	Final target (2029)
	d) investments in the deployment of technology as well as in systems and infrastructures for affordable clean energy, including energy storage technologies, and in greenhouse gas emission reduction	RCR31	Total renewable energy produced (of which: electricity, thermal)	MWh/an	0	2021	60
JTF	e) investments in renewable energy in accordance with Directive (EU) 2018/2001 of the European Parliament and of the Council (17), including the sustainability criteria set out therein, and in energy efficiency, including for the purposes of reducing energy poverty		Annual primary energy consumption Estimated greenhouse emissions	MWh/year Tons of CO2eq/year	23	2021	16
	f) investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure	RCR62	Annual users of new or modernized public transport	Users/year	87.000	2021	96.000



Problems faced with in 2022

- Delays due to Covid-19 (unavailability of employees & lateness of EU-regulation)
- Home-Office, sub-optimal conditions:
 - Reactivity of partners
 - Delays
 - Bad organisation of partners
 - Slow decision-making process
- ERDF OP 2021-2027: very limited budget (non-consideration of inflation)
- JTFP outsourced (Ministry of Energy and Territorial Development Planning)
- Principle of proportionality not respected (small programme but same workload)



Examples of projects – Research & Innovation (SO1)





CRTI-B
CENTRE DE RESSOURCES DES TECHNOLOGIES

CENTRE DE RESSOURCES DES TECHNOLOGIES ET DE L'INNOVATION POUR LE BÂTIMENT











Examples of projects – Energy (SO2)













infopoint myenergy



Thank you for your attention

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