

# DELIVERABLE D.T2.2.3 RI ROAD MAP PP04





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## 1 Regional Innovation Policy Context

#### Briefly describe:

• the regional innovation S3 priorities focused on SMEs and those that relate to sustainability, social accountability, social innovation and other priorities that may offer an opening to an evolution towards responsible innovation:

Until the end of 2020 new regional RIS3 should be prepared. It will be focused on:

- 1) Business development and innovation (research, development and innovation capacities of companies, technological cooperation of companies, support of start-up SMEs, entry of SMEs to foreign markets, difficult access to finance for innovation plans, increasing companies' awareness of innovation, etc.).
- 2) Research and development (support of public research organizations and teams, international research).
- 3) Cooperation between research organizations and companies (support for preparation and implementation of joint projects, innovation vouchers, access to instrumentation of research organizations for needs of external users, interdisciplinary interconnection of institutions, emergence of information and cooperation platforms, networking events).
- 4) Quality human resources (addressing problematic issues such as scarcity) qualified workers, qualified people from abroad, support endangered professions, leaving skilled workers, etc.).
- 5) Information and communication technologies (development of new ICT services for business, improving business access to shared service centers and new ones sophisticated cloudcomputing solutions, improving business access to data centers and their services, development of cloud services for businessmen, the use of ICT in business and the introduction/development of EBusiness, support of companies focused on development of new HW and SW for R&D&I support).
- 6) Societal challenges (tackling societal challenges employment, economic and economic growth, degradation of ecosystems, aging population, growth of civilization diseases, social justice, urbanization and Smart City, social justice and fundamental human rights, migration, digital single market, personal data protection, cyber security help high technology).

(In: Aktualizace krajských RIS3 strategií pro programovém období 2021-2027; published on 20.06.2019)

the innovation maturity of the region (you may refer to the Regional Innovation Scoreboard);
 According to the RIS 2019 the regions perform innovation on moderate/strong level.

CZ01: strong – CZ02: moderate CZ03: moderate + CZ04: moderate –





CZ05: moderate + CZ06: moderate + CZ07: moderate + CZ08: moderate

- highlights about the regional innovation ecosystem, if they matter to responsible innovation.
   The implementation of innovation in companies is significantly limited by the lack of financial resources, daily responsibilities/tasks and lack of quality experts for innovation.
   There is still an underdevelopment concerning RI components in some regions e. g.:
  - Lack of regional and local financial sources.
  - Lack of information about development trends in technologies, about possibilities of application results of applied research on foreign markets.
  - Insufficient service for SMEs in terms of development and implementation of innovations, transfer of technologies and outputs of R&D; insufficient system of technology transfer support.
  - Lack of venture capital resources and a willingness to invest in the development of promising SMEs; poor communication (missing contact point, intermediary body).

# 2 Regional RI Maturity

# 2.1 RI Performance of Regional Policy Making

RI Category	RI Component	Indicator	Type of measurement	Metric	Data source	Assessment (Modest/Moderate/Substantial) + Short description
Purpose	Motivation for doing/supporting research/innovat ion	M1: Integration of innovation/S&T in policy planning and strategies	Qualitative	Inclusion of innovation/S&T components in the official policies of the organizations (e.g. strategic plans, policy documents, etc.)	Regional policy/planning documents – Partners'/Experts' assessment	SUBSTANTIAL - innovation/S&T components are integrated in the RIS3 national "Innovation Strategy of the Czech Republic 2019– 2030" and all regional strategic plans and policy documents
	Motivation for engaging with RI	M2: Integration of RI components in policy planning and strategies	Qualitative	Inclusion of RI components in the official policies of the organizations (e.g. strategic plans, policy documents, etc.)	Regional policy/planning documents – Partners'/Experts' assessment	SUBSTANTIAL - RI components are integrated in the RIS3 national "Innovation Strategy of the Czech Republic 2019–2030" and all regional strategic plans and policy documents
		M3: Financial commitment on RI components	Quantitative	Budget allocation for RI components in the budget of	Budget documents –	MODERATE/SUBSTANTIAL  a) presence - yes

regional policy makers: (a) presence of specific budget headings for RI or its components; (b) annual amount (%, or €); (b) evolution (increase, decrease, stable over the last 3 years - or other programming period where appropriate)  Ethics (justification of intended planning and outcomes)  Outcomes)  Ethics (significance of junificance of junificance of intended outcomes)  Articipation A 1: Foresight and strategic planning allitative of foresight and strategic planning allitative of the prosession of the process of the prosession of the procession of the process of					. ,	D 1 1/5 11	1) 1.11.
presence of specific budget headings for RI or its components; (b) annual amount (%, or 6); (b) evolution (increase, decrease, stable over the last 3 years – or other programming period where appropriate)  Ethics (justification of intended planning and outcomes) strategies strategies (e.g. strategic plans, policy documents, etc.)  Process Anticipation A1: Foresight and A2: Foresight and							
Specific budget headings for RI or lits components; (b) annual amount (%, or ¢; (b) evolution (increase, decrease, stable over the last 3 years — or other programming period where appropriate)					` '	assessment	c) evolution - increase
Regional   Substantial   Process   Anticipation   A1: Foresight and   A1: Foresight							
Its components; (b) annual amount (%, or €); (b) evolution (increase, decrease, stable over the last 3 years – or other programming period where appropriate)    Ethics (justification of intended outcomes)   Strategies   Strategies   Strategies   Strategie plans, policy documents, etc.)   Strategies							
Companies   Com					_		
Section of intended outcomes   Strategies   Frocess   Anticipation   Al: Foresight and   Quantitative/Qu   Number of   Regional   SUBSTANTIAL					=		
evolution (increase, decrease, stable over the last 3 years – or other programming period where appropriate)  Ethics (justification of intended outcomes)  Strategies  UNDGs in policy planning and outcomes)  Ethics (e.g. strategic plans, policy documents, etc.)  Process  Anticipation  A1: Foresight and A1: Foresight and A1: Foresight and A2 and A2 and A2 and A3 and A3 and A3 and A3 and A3 and A3 and A4 and					` '		
Company of the plant of the p							
Ethics (justification of intended outcomes)   Etrategies   Strategies   Etrategies   Etrategie					evolution		
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Sethics   Continue   Company   Continue							
Ethics (justification of intended outcomes)   Etrategies   Etrategie					over the last 3		
Ethics (justification of intended outcomes)   Ethics   E1: Significance of (justification of intended outcomes)   Strategies   E1: Significance of (justification of intended outcomes)   Strategies   E1: Significance of (justification of intended outcomes)   Strategies   E1: Significance of (justification of intended outcomes)   Outcomes					years – or other		
Ethics (justification of intended outcomes)  Ethics (justification of UNDGs in policy documents (e.g. strategic plans, policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in policy documents – Partners'/Experts' assessment  Ethics (justification of UNDGs in poli					programming		
Ethics (justification of intended outcomes)  Ethics (justification of UNDGs in policy planning and policy documents outcoments outcomes)  Ethics (justification of UNDGs in policy planning documents outcoments outcoments outcoments outcomes)  Ethics (justification of UNDGs in policy planning documents outcoments					period where		
(justification of intended outcomes)  VNDGs in policy planning and strategies  VNDGs in regional policy documents (e.g. strategic plans, policy documents, etc.)  Partners'/Experts' assessment  VNDGs in regional policy/planning documents – Partners'/Experts' assessment  1) Good democratic governance 2) Sustainable management of natural resources 3) Economic transformation and growth 4) Agriculture and rural development 5) Inclusive social development (Development Cooperation Strategy of the Czech Republic, 2018-2030)  Process  Anticipation  A1: Foresight and Quantitative/Qu Number of Regional  SUBSTANTIAL					appropriate)		
intended outcomes)  planning and strategies  policy documents (e.g. strategic plans, policy documents, etc.)  policy documents (e.g. strategic plans, policy documents, etc.)  partners'/Experts' assessment  3) Economic transformation and growth  4) Agriculture and rural development  5) Inclusive social development  (Development Cooperation Strategy of the Czech Republic, 2018-2030)  Process  Anticipation  A1: Foresight and Quantitative/Qu Number of Regional SUBSTANTIAL		Ethics	E1: Significance of	Qualitative	Reference to	Regional	MODERATE/SUBSTANTIAL
outcomes)  strategies  (e.g. strategic plans, policy documents, etc.)  Partners'/Experts' assessment  (below the plans of the company of the		(justification of	UNDGs in policy		UNDGs in regional	policy/planning	- selected priorities of UNDGs the Czech Republic will focus on:
plans, policy documents, etc.)  Process Anticipation  A1: Foresight and Quantitative/Qu Number of Regional  plans, policy documents, etc.)  plans, policy documents, etc.)  plans, policy documents, etc.)  A) Economic transformation and growth 4) Agriculture and rural development (Development Cooperation Strategy of the Czech Republic, 2018-2030)  SUBSTANTIAL		intended	planning and		policy documents	documents –	1) Good democratic governance
documents, etc.)  4) Agriculture and rural development 5) Inclusive social development (Development Cooperation Strategy of the Czech Republic, 2018-2030)  Process Anticipation A1: Foresight and Quantitative/Qu Number of Regional SUBSTANTIAL		outcomes)	strategies		(e.g. strategic	Partners'/Experts'	2) Sustainable management of natural resources
Process Anticipation A1: Foresight and Quantitative/Qu Number of Regional 5) Inclusive social development (Development Cooperation Strategy of the Czech Republic, 2018-2030)  SUBSTANTIAL					plans, policy	assessment	3) Economic transformation and growth
Process Anticipation A1: Foresight and Quantitative/Qu Number of Regional (Development Cooperation Strategy of the Czech Republic, 2018-2030)					documents, etc.)		4) Agriculture and rural development
Process Anticipation A1: Foresight and Quantitative/Qu Number of Regional SUBSTANTIAL							5) Inclusive social development
Process     Anticipation     A1: Foresight and Quantitative/Qu Number of Regional     Regional     SUBSTANTIAL							(Development Cooperation Strategy of the Czech Republic,
							2018-2030)
strategic planning lalitative foresight and policy/planning - there is presence of foresight and strategic planning activities	Process	Anticipation	A1: Foresight and	Quantitative/Qu	Number of	Regional	SUBSTANTIAL
The state of the s			strategic planning	alitative	foresight and	policy/planning	- there is presence of foresight and strategic planning activities
activities (e.g. strategic planning documents –			activities (e.g.		strategic planning	documents –	
Scenario building, activities in the			Scenario building,		activities in the		

	delphis, etc.)		current and	Partners'/Experts'	
	(adapted from		preceding	assessment	
	Eastwood et al.		governing period	dosessinene	
	2017)		(e.g. regional		
	2017)		legislature,		
			depending on local		
			regulation)		
			[Presence/Absenc		
			e of activities if the		
			number is not		
			available]		
Public	PE1: Public	Quantitative	% of respondents	Special	MODERATE
	perceptions on	Quantitative	who stated that	Eurobarometer	- 19% of respondents stated "the public should be consulted
engagement	public				and public opinion should be considered when making
	involvement in		"the public should be consulted and	340 (national data), p. 87.	decisions about science and technology"
	science and		public opinion	uata), μ. δ7.	decisions about science and technology
			should be		
	technology (Tsanos and		considered when		
	Apospori 2017)		making decisions		
	Apospori 2017)		about science and		
			technology"		
	PE2:	Qualitative	Qualitative	Partners'/Experts'	MODEST/MODERATE
	Formalisation and		discussion and	assessment	- not formalised / low involvement
	extent of public		self-classification		
	involvement in		as:		
	regional science		- Formalised / high		
	and technology		involvement		
	decision-making		- Formalised / low		
			involvement		

Responsiveness	(Tsanos and Apospori 2017)  RES1: Potential to	Qualitative	- Not formalised / high involvement - Not formalised / low involvement Existence of	Regional policy	MODERATE
nesponsiveness	adapt policies and strategies (adapted from Eastwood et al. 2017)	Quantative	stakeholder/public feedback mechanisms in policy/strategy implementation		MODERATE
	RES2: Openness and transparency of the planning and policy process (adapted from Eastwood et al. 2017)	Qualitative	Existence of stakeholder/public communication mechanisms in policy/strategy implementation procedures	Regional policy and strategy documents/ Partners'/Experts' assessment	MODERATE
Reflection	REF1: Reflexive guidance in regional policy/strategy on RI (adapted from Eastwood et al. 2017)	Qualitative	Existence of offices, fora, committees, etc. for the monitoring and assessment of program/project implementation activities involving RI and its components	Regional policy and strategy documents/ Partners'/Experts' assessment	MODEST/MODERATE

	REF2: Regional support/incentive s for the use of	Qualitative	Existence of regional programs/actions	Regional policy and strategy documents/	MODEST/MODERATE
	standards and certifications related to RI (e.g. ISO, SA, UNI)		supporting /requiring the use of instruments such as codes of	Partners'/Experts' assessment	
	(adapted from Eastwood et al. 2017)		conduct and standards in R&I		
Governance	G1: Extent of R&I networks (e.g. platforms, hubs, incubators, accelerators) promoting / supporting RI in the region (Tsanos and Apospori 2017)	Quantitative/Qu alitative	Self-assessment in terms of: - Number of networks [Existence of networks if the number is not available] - Extent of involvement of regional policy makers in these networks - Formal / informal character of networks	Regional policy and strategy documents/ Partners'/Experts' assessment	- e. g. Prague INSPIRE Hackathon 2020 (Czech Centre for Science and Society as one of the organisers) on the main theme "Digital Innovation Hubs, Earth Observation and Artificial Intelligence for Rural and Regional Development, Agriculture and Transport" - R&I networks have both formal and informal character and regional policy makers are involved in these networks, too
	G2: Activities of funders to promote RI at	Quantitative/Qu alitative	Self-assessment in terms of: - Number of	Regional policy and strategy documents/	MODERATE - existence of funding mechanisms to support RI activities

	regional level		funding	Partners'/Experts'	
	(Tsanos and		mechanisms to	assessment	
	Apospori 2017)		support RI		
			activities		
			[Existence of		
			mechanisms, if the		
			number is not		
			available];		
			- € invested in RI-		
			relevant projects		
Ethics	E2: Ethical	Quantitative/Qu	% of R&I proposals	Regional policy	SUBSTANTIAL
(deontology)	considerations in	alitative	for funding by	and strategy	
	the evaluation for		regional policy	documents/	
	the regional		makers that are	Partners'/Experts'	
	funding of R&I		subject to	assessment	
	proposals (Tsanos		evaluation of		
	and Apospori		ethical concerns		
	2017)		(i.e., R&I practices,		
			ethical		
			implications for		
			the objects of R&I,		
			ethical		
			acceptability of		
			R&I outcomes)		
			over total number		
			of R&I proposals		
			[Existence of		
			evaluations, if the		
l			l	I	1

				number is not available]		
Products	Gender/equality and diversity	GE1: Gender gap of core human resources in science and technology (Tsanos and Apospori 2017)	Quantitative	% difference between the share of economically active population for women and the share of economically active population for men in science and technology	EU regional statistical yearbook 2015, p. 256	MODERATE CZ0: 0.0 - < 5.0
	Gender/equality and diversity	GE2: Support for gender equality in regionally funded R&I projects (adapted from Tsanos and Apospori 2017)	Quantitative/Qu alitative	Number of regionally funded R&I projects supporting gender equality and/or creating of RDI jobs that employ women [Existence of funded projects, if the number is not available]	Regional policy and strategy documents/ Partners'/Experts' assessment	MODEST - no existence of regionally funded R&I projects supporting gender equality and/or creating of RDI jobs that employ women - there is only existence of such funded projects on national level – e. g. in 2018, the Technology Agency of the Czech Republic (TACR) implemented the Gender Policy of TA CR120. The 2nd tender for the ZÉTA121 program was launched, one of its objectives being equalizing the opportunities of women and men in the area of research and innovation (In: Zpráva za rok 2018 o rovnosti žen a mužů, 2019, p. 37) - there is also also existence of non-profit organisations supporting gender equality – e. g. "Open Society" Strengthening Civic Society in the Czech Republic (a partner in legislative process and the adviser for public administration, commercial sector and individuals; helps the institutions of public administration to create an open and fair relationship with all citizens; supports people against the arbitrary acts of

					authorities; educates the public to open-minded thinking without prejudices.)  www.otevrenaspolecnost.cz
Open access	OA1: Regional policies for dissemination of and open access to scientific, technical and economic information (adapted from Tsanos and Apospori 2017)	Qualitative	Qualitative discussion and self-assessment in terms of: - Existence of a regional policy for open access - Regional institutional mechanisms for establishing, maintaining and monitoring open science and innovation	Partners'/Experts' assessment	MODEST  - no existence of a regional policy for open access  - there is only national RSI3 and other national strategic documents which contains the dissemination of OA, but it is not so in strategic documents of single regions
	OA2: Inclusion of open access / open science measures in research policies and calls for proposals (adapted from Tsanos and Apospori 2017)	Qualitative	Existence of Regional open science / open innovation repositories or of regional support (e.g. financial) for the participation in sector or other repositories	Regional programming documents	MODERATE  The Czech Science Foundation signed the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities in 2008, but it still does not require open access to published results.  General information on open access is available on the portal Open Access in the Czech Republic provided by the Association of Libraries of Czech Universities (ALCU) Open Access Initiative. The Open Access Initiative performs the goal of the ALCU Key Activity 1 (Support of open access as a change in scholarly communication). ALCU also supports repositories (DSpace CZ).

UN	UN1: Degree of	Qualitative	Qualitative	Partners'/Experts'	MODERATE
Development	impact on UNDGs		discussion and	assessment	
Goals			partners'		
			assessment in		
			terms of the		
			UNDGs which		
			regional policy		
			impacts the most		

## 2.2 RI Performance of Enterprise

At this place it is necessary to remark that all the SMEs that have answered to us are beginning micro-companies from the area of language teaching business with very specific needs and demands.

Category	Component	Data source	Metric	Type of measurement	Indicator	Assessment (Modest/Moderate/Substantial) + Short description
Purpose	Motivation for doing/supporting research/innovation	RRI Development plan, "1. Formulate your goal"	Inclusion of innovation/S&T components in the official planning of the organizations (e.g. strategic plans, vision ad mission statements, etc.)	Qualitative	M1: Integration of innovation/S&T in corporate planning and strategies	MODERATE/SUBSTANTIAL  - usually micro-SMEs do not spend much space by strategic planning and such like, but they are surprisingly interested in these themes and they appear to be ready for inclusion of innovation/S&T components in their strategic plans at least partially because they wat to offer better services and earn more money
	Motivation for engaging with RI	RRI In-depth Assessment Tool	Inclusion of RI components in the official planning of the organizations	Qualitative	M2: Integration of RI components in policy planning and strategies	MODERATE/SUBSTANTIAL - usually micro-SMEs do not spend much space by strategic planning and such like, but they are surprisingly interested in these themes and they

		(e.g. strategic plans, vision ad mission statements, etc.)			appear to be ready for inclusion of RI components in their strategic plans at least partially because they wat to offer better services and earn more money
	Self-assessment (*)	Budget allocation for RI components in companies' budget: (a) presence of funded programs targeting (selected) RI components; (b) annual amount (%, or €); (b) evolution (increase, decrease, stable over the last 3 years – or other programming period where appropriate)	Quantitative	M3: Financial commitment on RI components	a) no presence of such programs (except of CCSS' Pilot SMEs which participate in ROSIE project) b) since now 0% c) evolution – stable over the last 3 years
Ethics (justification of intended outcomes)	Self-assessment(*)	Participation in programs and schemes, and adoption of instruments both mandatory and voluntary relevant for the achievement of the	Qualitative	E1: Significance of UNDGs in companies' activities and strategies	MODEST - no participation in such programs (except of CCSS' Pilot SMEs which participate in ROSIE project)

		RRI In-depth Assessment Tool	No. of public- sponsored projects	Quantitative/ Qualitative	PE2: Participation in public-sponsored	MODEST
	Public engagement	RRI In-depth Assessment Tool	Qualitative discussion and self-assessment of the companies' experience in users' engagement techniques (e.g. living labs)	Qualitative	PE1: Users' involvement in design and development processes	MODEST - no experience in users' engagement techniques (except of CCSS' Pilot SMEs which participate in ROSIE project)
Process	Anticipation	Self-assessment(*)	guidelines, certifications, standards)  Number of foresight and strategic planning activities in the current and preceding planning period (specify the relevant planning period) [Presence/Absence of activities if the number is not available]	Quantitative/ Qualitative	A1: Foresight and strategic planning activities (e.g. Scenario building, delphis, etc.) (adapted from Eastwood et al. 2017)	MODEST  - absence of foresight and strategic planning activities in the current and preceding planning period
			UNDGs (e.g. ethics codes, voluntary			

		on engagement in R&I joined [Presence/Absence of activities if the number is not available]		engagement projects on R&I	- no participation in public-sponsored engagement projects on R&I (except of CCSS' Pilot SMEs which participate in ROSIE project)
Responsiveness	RRI In-depth Assessment Tool /Self-assessment	Implementation of users/communities feedback mechanisms in companies' operations	Qualitative	RES1: Potential to adapt production processes and business strategies (adapted from Eastwood et al. 2017)	MODERATE/SUBSTANTIAL  - the potential to adapt production processes and business strategies seems to be very high  - micro-companies from the area of language teaching business know their users usually very good, ask them often and get the feedback from them easily
	RRI In-depth Assessment Tool /Self-assessment	Adoption of CSR instruments, such as social budget, sustainability reporting etc. detailing the social/environmental value of corporate operations to customers and stakeholders	Qualitative	RES2: Openness and transparency of corporate operations (adapted from Eastwood et al. 2017)	MODEST - no adoption of CSR instruments
Reflection	Self-assessment(*)	Existence of/participation in offices, fora, committees, etc.	Qualitative	REF1: Reflexive guidance in companies strategies (adapted from Eastwood et al. 2017)	MODEST - no existence of/participation in offices, fora, committees, etc. for the monitoring and assessment companies activities relevant to RI

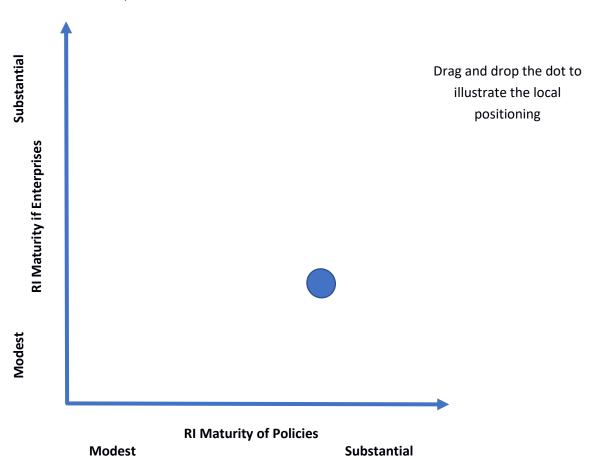
		for the monitoring and assessment companies activities relevant to RI			
	Self-assessment(*)	Instruments used by companies, such as codes of conduct, standards, etc. related to RI (e.g. ISO, SA, UNI)	Qualitative	REF2: Use of standards and certifications related to RI (e.g. ISO, SA, UNI) (adapted from Eastwood et al. 2017)	MODEST - no existence of such instruments
Governa	Self-assessment(*)	Self-assessment in terms of: - Number of networks joined [Existence of networks if the number is not available] - Extent of involvement of companies in these networks (e.g. leading working groups, participating in exchanges of best practices, etc.) - Formal / informal	Quantitative/ Qualitative	G1: Participation in R&I networks (e.g. platforms, hubs, incubators, accelerators) promoting / supporting RI in the region (adapted from Tsanos and Apospori 2017)	MODERATE - existence of networks — both formal and informal character - mainly a member of an association or at least visiting meetings of these associations or getting information from them - there is also cross-border cooperation in some cases (Czech — German)

RRI In-depth Assessment Tool  Racquired to promote companies activities (adapted from Tasanos and Apospori  Racquired to promote companies activities (adapted from Tasanos and Apospori  Racquired to promote companies activities (adapted from Tasanos and Apospori  Racquired to promote companies activities (adapted from Tasanos and Apospori  Racquired to promote companies activities (adapted from Tasanos and Apospori  Roll Racquired to promote companies activities (adapted from Tasanos and Apospori  Racquired to promote companies activities (adapted from Tasanos and Apospori  Roll Racquired to promote companies activities (adapted from Tasanos and Apospori  Roll Racquired to promote companies  Adoption Tasanos and Apospori  Adoption Tasanos		•	Self-assessment	companies		companies'	of language teaching business
RRI In-depth Assessment Tool  Ref-assessment In Assessment Tool  Self-assessment in Coullitative/ terms of: - Number of successful bids [Existence of mechanisms, if the number is not available]; - Cacquired to invest in RI-relevant projects - Sources of funds acquired by the companies  Ethics (deontology)  Self-assessment(*)  Qualitative discussion and self-assessment of the utilization of Codes of Conduct or other instruments for ensuring the integrity of R&I practices  RRI In-depth Assessment in Quantitative/Qualitative dacquired to promote companies acquired to promote acquired to promote acquired to promote acquired to promote companies acquired to promote acquire			•	1	Quantitutive		- no relevant for micro-companies from the area
RRI In-depth Assessment Tool  RRI In-depth Assessment Tool  RRI In-depth Assessment Tool  RRI In-depth Assessment Tool  terms of: - Number of successful bids [Existence of mechanisms, if the number is not available]; - € acquired to invest in RI-relevant projects - Sources of funds acquired by the companies  Ethics (deontology)  Self-assessment(*)  Qualitative  discussion and self- assessment of the utilization of Codes of Conduct or other instruments for ensuring the integrity of R&I  RI In-depth Assessment in terms of: Qualitative CQ: Third party funds acquired to promote companies  - no existence  - no existence of Codes of Conduct or other instruments for ensuring the integrity of R&I  practices in the company	Products	Gender/equality	RRI In-depth	% female employee	Quantitative	GE1: Gender gap of	
RRI In-depth Assessment Tool  Self-assessment in terms of: - Number of successful bids [Existence of mechanisms, if the number is not available]; - € acquired to invest in RI-relevant projects - Sources of funds acquired by the		Ethics (deontology)	Self-assessment(*)	discussion and self- assessment of the utilization of Codes of Conduct or other instruments for ensuring the integrity of R&I	Qualitative	adherence to Codes of Conduct or other instruments for ensuring the integrity of R&I	- no existence of Codes of Conduct or other instruments for ensuring the integrity of R&I
character of potysoks			•	netwoks  Self-assessment in terms of: - Number of successful bids [Existence of mechanisms, if the number is not available]; - € acquired to invest in RI-relevant projects - Sources of funds acquired by the	Qualitative	acquired to promote companies' RI related activities (adapted from Tsanos and Apospori	

				R&D/technical offices/divisions (adapted from Tsanos and Apospori 2017)	
Gender/equality and diversity	RRI In-depth Assessment Tool / Self-assessment	Number of companies' initiatives supporting gender equality and/or creating of R&I jobs that employ women [Existence of initiatives, if the number is not available]	Quantitative/ Qualitative	GE2: Companies' programs/measures to support for gender equality in R&I activities/functions	no existence (no relevant for micro-companies from the area of language teaching business)
Open access	RRI In-depth Assessment Tool / Self-assessment	Qualitative discussion and self- assessment in terms of the frequency of using open access/open data sources to know up-to-date research outputs for the business operations	Qualitative	OA1: Evidence of use of and/or contribution to open data repositories as input to /output of innovation processes	SUBSTANTIAL - for micro-companies from the area of language teaching business this is one of the most interesting parts within RRI - firms are open to contribute to open data repositories, they are open to collaborate in a project where this would be a part of such project

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	RRI In-depth	Number of R&I	Quantitative/	OA2: Participation in R&I	MODEST
	Assessment Tool /	funding/policy	Qualitative	funding/policy programs	- no existence of such programs (except of CCSS'
	Self-assessment	programs joined by		requiring a commitment	Pilot SMEs which participate in ROSIE project)
		companies		to an open access / open	
		[Existence of		science policy	
		programs, if the			
		number is not			
		available]			
UN	Self-assessment	Self-assessment of	Quantitative	UN1: Degree of impact	MODERATE
Development	tool, "RI Drivers -	the impact of		on UNDGs (17 indicators,	GOAL 1 – 7,8
Goals	Respondence of the	companies'		on for each indicator)	GOAL 2 – 6,7
	innovation process	innovative			GOAL 3 – 7,6
	to the dimensions	products/services			GOAL 4 – 9,8
	of RRI"	on sustainable and			GOAL 5 – 7,7
		inclusive			GOAL 6 – 6,3
		development (10			GOAL 7 – 6,1
		point scale)			GOAL 8 – 8,8
					GOAL 9 – 7,9
					GOAL 10 – 9,1
					GOAL 11 – 7,4
					GOAL 12 – 6,7
					GOAL 13 – 6,1
					GOAL 14 – 5,8
					GOAL 15 – 6,3
					GOAL 16 – 8,1
					GOAL 17 – 7,6
					(19 micro-companies from the area of language
					teaching business from all over the Czechia)

## 2.3 Assessment of Local RI Maturity Level







## 3 Priorities for Action

Depending on the assessment, partners can then define measures and actions either to strengthen the alignment of public policies and firms' activities, to fill the gaps in public policy, or to elaborate initiatives to stimulate firms' commitments. Check Table 3 of the D.T2.2.1 RI Roadmap Template and Guidelines.

Priority could be given to:

- Develop regional policies for RI and start target engagement/communication initiatives to raise firms' awareness on the matter
- Expand firms' participation in regional policies for RI
- Strengthen the policy environment for RI to maintain and foster corporate involvement
- Consolidate and develop existing alignments and initiatives

Illustrate the local choice.

As shown above, Czech SMEs from the area of language teaching business focus on Quality Education and Open Access. CCSS will try to take advantage of already existing local alignments and initiatives dealing with these issues. CCSS will provide results from the Pilot Action and Self-Assessment to innovation centres, relevant research and educational institutions and connect them with microcompanies from the area of language teaching business.

CCSS is going to transmit information about current local funding opportunities to 6 CCSS Pilots in their field of business and offer them participation in a new project.

## 4 Lessons from the Pilot Actions

Describe the main outcomes from the local pilot actions. Refer to you input to:

- D.T3.2.1 Pilot Local Area Start-Up Report
  - CCSS started to assist 5 micro-companies entrepreneurial in the field of language business. During the first weeks of cooperation CCSS became convinced of the usefulness of the Pilot Action. All 5 micro-companies were introduced to RRI and they have found that OA is most attractive to them if we speak about application of RRI into their business.
- D.T3.2.2 Pilot Local Area Mid-Term Report





- One SME is added to CCSS's ROSIE Pilot Action due to the great interest in the issue. CCSS now has 6 SMEs participating in the Pilot Action. After the introduction in RRI accenting OA, existent OER for SL lecturers were introduced to the companies. All companies agreed on that they want to make their of own OER with CCSS's help. CCSS assisted in making an 'OER catalogue' (<a href="https://tagpacker.com/user/RRI-Czech">https://tagpacker.com/user/RRI-Czech</a>). After that 'Open teacher', a group of topics like How to find legal images, Massive Open Online Courses, Earning Money by Sharing etc., was developed. Finally, Czech National Corpus was introduced. All micro-companies asked CCSS for advice about funding and grant opportunities in their field of business. A brief overview was prepared and presented to SMEs. At the end roadmapping using Cover Story tool was undertaken. Theoretical lessons were combined with practical output of particular pilots. Communication was led online (Zoom, Skype), as well as at personal meetings.
- D.T3.2.3 Pilot Local Area Final Report
  - Our pilots started to really use specigic RI elements and pillars during the PA. CCSS managed to direct them to the implementation of RI topics into their business plan. The current Covid situation has shown that the implementation of RI solutions has helped maintain existing jobs. CCSS's Pilot Action has already correctly estimated this in its preconceptions and then correctly targeted all our educational activities as part of our year-year-long assistance. The final meeting with our pilots was very fruitful for giving us important and positive feedback for us. CCSS decided with some of our Pilots to cooperate also after the end of the ROSIE project. To reflect the current state and status of Czech educational system led us to search for proper solutions for one of the most pressing questions in this time of rapid digital transformation: To make the teachers be self-dependent in the field of further digital education and to be able to (re-)use the OER in and to take full advantage of it. The results will be more effective businesses (when we speak about private teachers) and positive and mutually enriching student-teacher cooperation which, last but not least, will help to overcome the existing disproportion between school and reality.

## 5 Lessons from the Study Visits

Illustrate whether you got specific inspiration from the study visits, as described in:

- D.T2.3.2 Report and material from Transnational Study Visit 01
- D.T2.3.3 Report and material from Transnational Study Visit 02
- D.T2.3.4 Report and material from Transnational Study Visit 03

Further reference may be made to inspirational content in:

• D.T3.4.2 - Report on KM / IM session 01





- D.T3.4.3 Report on KM / IM session 02
- D.T3.4.4 Report on KM / IM session 03





## 6 The Roadmap

## 6.1 Action #1 More frequent participation in conferences focusing on Education & OER

As one of the main results of this Pilot Action, CCSS as a society focusing also on education monitors the lack of such support and that is why CCSS decided to go in that direction even more. CCSS is going to take part in one Czech conference for teachers (Computer at School) and one international educational conference (EDULEARN) and help to spread the information about ROSIE project, RRI and the Czech Pilot Action. Also the lack of research literature to on this subject, namely the implementation of RRI in the sphere of (not higher) education, was one of the reasons why CCSS decided to share our experience in this way.

## Computer at School in Nové Město na Moravě (CZ) www.pocitacveskole.cz

2.-4. 4. 2020  $\rightarrow$  postponed to 17.-19. 9. 2020 active attendance  $\rightarrow$  2 workshops & 1 talk - workshops:

#### a) Responsible teacher

Abstract in Czech: [V našem workshopu ukážeme příklady z roční asistence zaměřené konkrétně pro potřeby učitelek a učitelů zaměřujících se především na inovativní výuku v jazyků pomocí IT. Chceme učitele vtáhnout do neuvěřitelně spletitého světa internetu jako pomocníka při tvorbě příprav, zdroje aplikací motivujících studenty k aktivní participaci na výuce (hlasování o problémech / tématech, reflexi vlastních vstupních prekonceptů atd.) a samozřejmě jako komunikačního média. Co to znamená odpovědně využívat volně dostupné zdroje na internetu? Jak s nimi nakládat? Jak sami sdílet vlastní materiály tak, aby to bylo přínosem i pro mě jako učitele? Proč a jak využívat technologie jako jsou například aplikace jako Mentimeter, Storymap či Hypersay? Vše budeme ilustrovat na výuce tématu odpovědných inovací v jazykových kurzech. Na výše uvedené otázky se vám pokusíme odpovědět během workshopu. Ale vzhledem k omezenému času a nesmírné šíři tématu vám budeme rádi k dispozici i na Facebooku Českého centra pro vědu a společnost nebo je možné zorganizovat osobní konzultace nebo rozsáhlejší workshopy. Workshop ale není rozhodně určen pouze jazykářům. Navazuje na úvodní přednášku věnovanou odpovědným inovacím (konceptu RRI). A ačkoli je v titulku slovo učitelka, muži-učitelé se nemusí bát přijít - budou vítáni!]

#### b) Playing with Czech National Corpus

Abstract in Czech: [Prakticky zaměřený workshop věnující se tématu využití jazykových korpusů nejen při výuce češtiny. Na začátku workshopu si povíme, co to jazykový korpus je, čím je jeho využívání při výuce jazyků inovativní a jak se práce s ním liší od vyhledávání textů v běžných internetových vyhledávačích. Zjistíte, že korpusová cvičení mají mnoho výhod: vycházejí ze skutečného jazykového úzu, jsou pro žáky atraktivní, umožňují o jazyce přemýšlet jinak a především jsou v souladu s nejnovějšími trendy ve výuce, tzv. DDL (data-driven learning). Konkrétně se pak budeme věnovat práci s Českým národním korpusem. Sami si zkusíte řešit úkoly, zadávat dotazy a vymýšlet vlastní cvičení. Získané dovednosti využijete jak při přípravách na hodiny, tak během výuky. Workshop je určen pro začátečníky i mírně pokročilé a rádi mezi sebou uvítáme nejen učitele jazyků.]





- talk:

#### a) The ROSIE project helps language teachers

Abstract in Czech: [Přednáška s názvem Projekt ROSIE pomáhá učitelům jazyků je určena zájemcům ze všech oborů. Její téma je průřezové, moderní a vysoce aktuální. Vychází z výsledků právě finišujícího evropského projektu ROSIE pracujícího s konceptem RRI - Responsible Research and Innovation (Odpovědný výzkum a inovace). Českou pilotáž vedou zástupci Českého centra pro vědu a společnost (CCSS). Šest mikro-firem zaměřujících se na výuku češtiny jako cizího jazyka implementuje koncept odpovědného výzkumu a inovací včetně relevantní pedagogicko-didaktické podpory učitelů a učitelek. Dále budou představeny výstupy roční intenzivní pilotáže, jednotlivé problémy a hlavně konkrétní přínosy této asistence a další vize. Hlavní důraz po celou dobu české pilotáže tohoto tříletého projektu je kladen na téma open access (otevřený přístup). Pod pojmem otevřený přístup se rozumí odpovědné nakládání učitele (i škol) se zdroji, síťování, sdílení vlastních dat.... Na přednášku bude navazovat konkrétně a prakticky zaměřený workshop s názvem "Odpovědná učitelka 2020".]

#### Edulearn in Palma de Mallorca (SP) www.iated.org/edulearn

6.–8. 7. 2020 active attendance (virtually)

→ 1 paper: Čerbová, Kristýna - Čerba, Otakar - Špádová, Barbora (forthcoming): Open Access as an educational framework, challenge and approach. Trends in teaching small languages. Edulearn 2020.

Abstract of the paper: [During the one year's pilot action (April 2019 – March 2020) within the ROSIE project focusing on monitoring implementation of the RRI concept (Responsible Research and Innovation) for SMEs, CCSS (Czech Centre for Science and Society) provided assistance to 6 SMEs working in the field of education. All lecturers-language tutors involved in the pilot action do private tutoring of so-called SL (small languages or language of minorities). Our presentation shows the results of this pilot action; all problems connected with existence and availability of OER for the SL lecturers are listed there. Our experience described here may be also useful to tutors of other SLs. Part of our assistance output can serve as a source of inspiration in general for online low-barrier tutoring (health, economic and other barriers), but also as motivation for other language education businesses, lecturers and agencies.

In January 2019 CCSS gave out an open call for business-people/lecturers in language services with an offer of assistance in the RRI area emphasizing OA (Open Access) and OE (Open Education). CCSS decided for this direction in particular on the ground of their previous experience with lack of quality OER for language tutors. Their basic presupposition was also lack of information in the bulk of SL tutors in the area of IT tools usable for teaching planning, teaching itself and self-presentation and transfer of the RRI topics.

The pilot action was eventually focused only on SL lecturers/businesswomen. The deciding factor for their selection was (unlike other interested people) repeated mentioning non-existent or insufficient support from the state and lack of OER usable for their field. In-depth interviews followed; in cooperation with selected pilots a plan of one-year assistance was created consisting of following topic blocks:

1. introduction in RRI accenting OA,





- 2. existent OER for SL lecturers,
- 3. creation of own OER,
- 4. making an 'OER catalogue',
- 5. 'Open teacher' (a group of topics like How to find legal images, Massive Open Online Courses, Earning Money by Sharing etc.),
- 6. Czech National Corpus & OER,
- 7. Funding and Grant Opportunities,
- 8. Roadmapping using Cover Story tool. Theoretical lessons were combined with practical output of particular pilots. Communication was led online (Zoom, Skype), as well as at personal meetings.

Evaluation of the pilot action by the pilots was mostly positive; all participants admitted that nearly all tools and topics introduced to them were new to them and therefore useful. Together we adjusted the further progress of the action to their current needs (regarding educational methods, approaches, techniques but also business strategies etc.).

CCSS tested such approaches towards SMEs as LL (Living Lab), STIR methodology or tools such as Design Thinking, RWCT (Reading and Writing for Critical Thinking) of graphic tools such as Genial.ly among others.

As one of the main results of this pilot action, CCSS as a society focusing also on education monitors the lack of such support. Meanwhile, CCSS is applying for accreditation at the Ministry of Education, Youth and Sports in the field of remote- or online teaching.

Keywords: Open Educational Resources, Open Access Education, Small Languages, Teaching, Pilot Action, Responsible Research and Innovation, Small and Medium Enterprises]

#### 6.2 Action #2 Applying for accreditation at the Ministry of Education, Youth and Sports

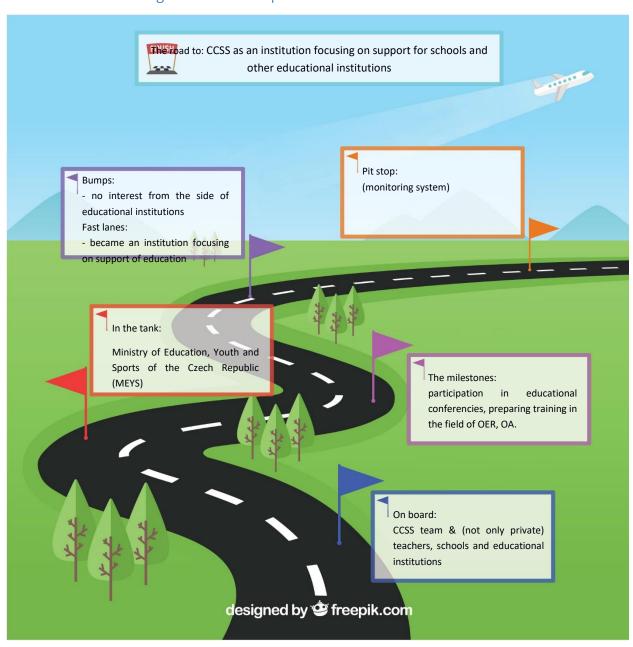
Although RRI initially seemed to be very theoretical, in the end, many issues proved to be very useful, applicable and practical. This was also confirmed by the high satisfaction of 6 teachers participating in the ROSIE project pilot action and their willingness to continue in the cooperation with CCSS. The special character of the Pilot Action is presented not only by the fact that CCSS made an exact estimation of its direction, but also in being able to report its success and make a challenge to follow and discuss these points with other researchers and institutions. We suppose that part of our assistance output can serve as a source of inspiration not only for tutors of other SLs, but also in general for online low-barrier tutoring (health, economic and other barriers) and as motivation for other language education businesses, lecturers and agencies. CCSS tested such approaches towards SMEs as LL (Living Lab), STIR methodology or tools such as Design Thinking, RWCT (Reading and Writing for Critical Thinking) of graphic tools such as Genial.ly among others. As one of the main results of this Pilot Action, CCSS as a society focusing also on education monitors the lack of such support. Meanwhile, CCSS is applying for accreditation at the Ministry of Education, Youth and Sports of the Czech Republic in the field of remote- or online teaching. 4 off-line/on-line courses: 1. Genial with





Genia.ly, 2. Playing with Czech National Corpus, 3. Making your educational materials move 4. Open and responsible access in school system).

## 6.3 A Visual Rendering of the Roadmap



<a href="https://www.freepik.com/free-photos-vectors/infographic">Infographic vector created by freepik - www.freepik.com</a>
<a href="https://www.freepik.com/free-vector/timeline-concept-with-winding-road">https://www.freepik.com/free-vector/timeline-concept-with-winding-road</a> 2485842.htm