TECHNOLOGY CENTRE CAS

GENERAL PRESENTATION OF CZECH-FRENCH COOPERATION IN THE FRAME OF EU PROGRAMMES

Czech-French Cooperation in Science: success stories and opportunities

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CONTENT OF PRESENTATION

1

- Cooperation in FPs in general
- Cooperation CZ and FR in FP7 and H2020

2

Mobility of researchers – MSCA IF, ERC

3

Collaboration CZ and FR:

- SEWP
- EURATOM

EuroSciVoc

4

Basic analysis of publication outputs
(Jiří Vaněček)

COOPERATION IN FPs IN GENERAL

❑ International scientific cooperation in FP7 and H2020

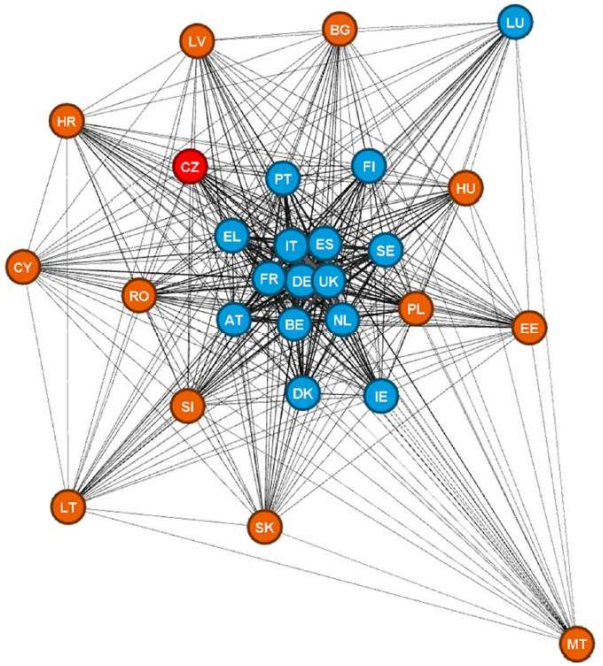
International scientific cooperation in the H2020 (in FP7 as well) is based on the creation of international research consortia (usually many-membered) led by project coordinator. For this reason, international cooperation in H2020 (FP7) is a result of Consortium Agreement and not the result of bilateral agreements between two countries.

❑ Geographical preferences in H2020

There are no geographical preferences in H2020 except Spreading Excellence and Widening Participation (SEWP)

❑ Scientific Excellence

Projects are funded and implemented on the basis of expert evaluation of proposals and the main criterion is scientific excellence



POSITION OF FRANCE AND CZECHIA IN FPs

France : FP7 + H2020

- Number of institutions: 4 616
- Projects: 15 246
- Participations: 27 368
- Eligible Costs: 17 789 € mil.
- EC Contribution: 12 747 € mil.

Strong Innovator

Czech Republic : FP7 + H2020

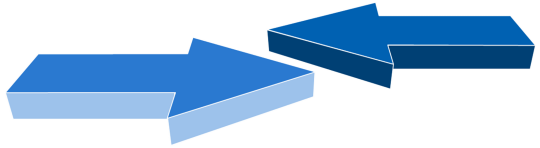
- Number of institutions: 666
- Projects: 2 476
- Participations: 3 139
- Eligible Costs: 1 066 € mil.
- EC Contribution: 775 € mil.

Moderate Innovator

COMMON (JOINT) PROJECTS: FR – CZ

1 369

FR participants: 3 454



CZ participants: 1 713

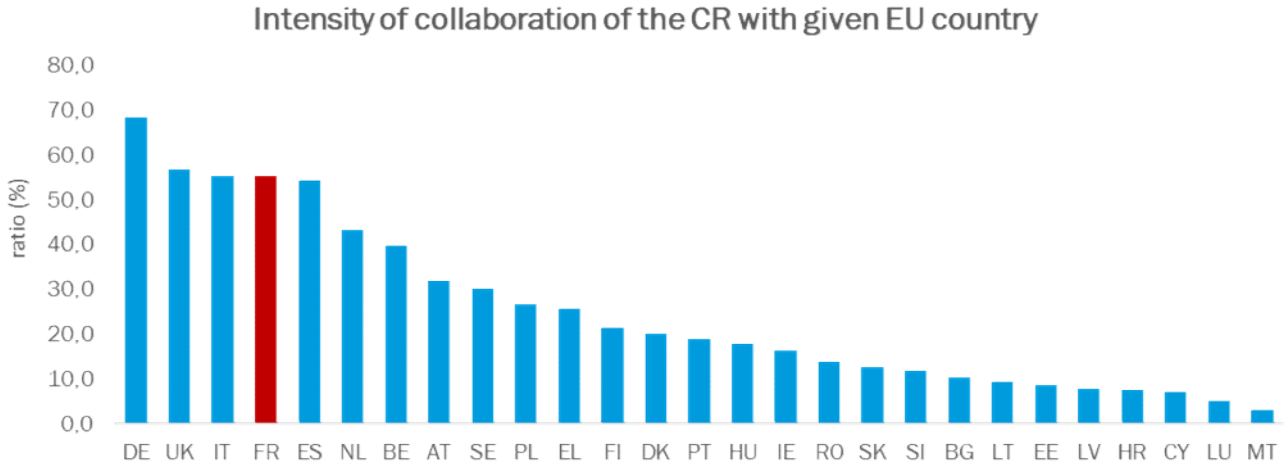
Collaborative Link: A collaborative link is assumed to exist between each pair of participants in each contract. The number of collaborative links created by a project is calculated in the following way:(a) When there are n participants from a given country in a project, the number of collaborative links between participants from the given country formed as a result of the project is assumed to be n*(n-1)/2.(b) When there are m participants from one country and p from another country in a project, the number of collaborative links created between the two countries as a result of the project is assumed to be m*p.

H2020 COLLABORATION MATRIX OF EU COUNTRIES

	AT	BE	DE	DK	EL	ES	FI	FR	IE	IT	LU	NL	PT	SE	UK	BG	CY	CZ	EE	HR	HU	LT	LV	MT	PL	RO	SI	SK	Total
AT	3 931	4 313	14 028	1 562	2 524	9 050	2 437	8 065	1 189	8 575	344	5 469	1 882	3 427	5 735	477	369	1 467	442	569	960	438	414	118	1 533	845	1 004	592	81 759
BE	4 313	6 276	17 207	2 767	4 797	15 156	3 173	14 652	2 347	13 916	722	10 882	3 250	4 224	10 826	833	667	1 910	782	712	1 444	650	616	166	2 492	1 576	1 386	667	128 409
DE	14 028	17 207	30 577	6 452	9 871	36 748	8 292	38 845	4 456	35 932	1 229	23 868	6 689	12 552	31 089	1 516	1 174	4 486	1 372	1 255	3 400	1 162	1 107	304	5 493	2 635	2 588	1 387	305 714
DK	1 562	2 767	6 452	1 943	1 616	5 340	1 354	4 907	959	4 537	248	3 842	1 391	2 073	5 039	327	202	629	442	394	548	245	272	84	1 119	500	581	272	49 645
EL	2 524	4 797	9 871	1 616	4 911	11 777	2 012	8 243	1 511	11 141	685	4 971	2 738	2 313	7 017	935	1 696	1 213	575	646	906	420	399	213	1 744	1 523	1 200	385	87 982
ES	9 050	15 156	36 748	5 340	11 777	28 355	7 115	31 589	4 828	35 965	1 109	16 830	8 441	9 541	23 972	1 765	1 666	3 709	1 555	1 690	2 743	993	927	293	5 552	2 973	2 842	1 205	273 729
FI	2 437	3 173	8 292	1 354	2 012	7 115	2 487	6 386	995	6 173	254	4 418	1 610	2 829	4 424	445	303	1 114	535	325	754	314	364	77	1 282	611	643	353	61 079
FR	8 065	14 652	38 845	4 907	8 243	31 589	6 386	26 169	3 997	29 872	975	17 144	5 971	9 114	24 465	1 419	976	4 151	1 080	1 301	2 892	1 086	835	233	5 306	2 631	2 254	1 273	255 831
IE	1 189	2 347	4 456	959	1 511	4 828	995	3 997	1 270	4 091	175	2 428	1 199	1 266	3 836	329	330	570	294	311	474	207	204	122	836	530	423	240	39 417
IT	8 575	13 916	35 932	4 537	11 141	35 965	6 173	29 872	4 091	25 951	1 011	15 960	6 788	8 757	23 409	1 666	1 399	3 581	1 462	1 550	2 638	1 048	940	362	5 152	3 097	2 867	1 268	259 108
LU	344	722	1 229	248	685	1 109	254	975	175	1 011	122	616	353	257	767	126	154	173	127	116	133	112	90	42	206	138	184	99	10 567
NL	5 469	10 882	23 868	3 842	4 971	16 830	4 418	17 144	2 428	15 960	616	10 916	3 841	5 645	15 203	713	618	2 263	862	729	1 643	614	663	189	2 989	1 519	1 402	712	156 949
PT	1 882	3 250	6 689	1 391	2 738	8 441	1 610	5 971	1 199	6 788	353	3 841	3 038	1 728	4 936	471	448	922	464	463	712	298	347	116	1 509	900	969	341	61 815
SE	3 427	4 224	12 552	2 073	2 313	9 541	2 829	9 114	1 266	8 757	257	5 645	1 728	3 709	7 638	462	303	1 296	465	403	863	338	328	106	1 699	803	710	422	83 271
UK	5 735	10 826	31 089	5 039	7 017	23 972	4 424	24 465	3 836	23 409	767	15 203	4 936	7 638	16 354	1 087	948	2 326	930	803	1 935	654	523	249	3 573	1 711	1 609	649	201 707
BG	477	833	1 516	327	935	1 765	445	1 419	329	1 666	126	713	471	462	1 087	1 182	264	279	229	246	318	126	162	57	439	453	305	170	16 801
CY	369	667	1 174	202	1 696	1 666	368	878	330	1 399	154	618	448	303	948	264	382	217	141	154	166	105	99	77	294	290	264	83	13 789
CZ	1 467	1 910	4 486	629	1 213	3 709	1 114	4 151	570	3 581	173	2 263	922	1 296	2 326	279	217	749	260	269	603	337	314	57	1 030	469	493	474	35 361
EE	442	782	1 372	442	575	1 555	535	1 080	294	1 462	127	862	464	465	930	229	141	260	297	170	251	160	193	50	374	261	298	145	14 216
HR	569	712	1 255	394	646	1 690	325	1 301	311	1 550	116	729	463	403	803	246	154	269	170	489	261	152	143	55	466	298	369	172	14 511
HU	960	1 444	3 400	548	906	2 743	754	2 892	474	2 638	133	1 643	712	863	1 935	318	166	603	251	261	679	205	201	58	771	486	449	275	26 768
LT	438	650	1 162	245	420	993	314	1 086	207	1 048	112	614	298	338	654	126	105	337	160	152	205	153	152	43	339	208	200	193	10 952
LV	414	616	1 107	272	399	927	364	835	204	940	90	663	347	328	523	162	99	314	193	143	201	152	225	45	367	210	240	169	10 549
MT	118	166	304	84	213	293	77	233	122	362	42	189	116	106	249	57	77	57	50	55	58	43	45	110	78	77	57	40	3 478
PL	1 533	2 492	5 493	1 119	1 744	5 552	1 282	5 306	836	5 152	206	2 989	1 509	1 699	3 573	439	294	1 030	374	466	771	339	367	78	1 920	784	614	433	48 394
RO	845	1 576	2 635	500	1 523	2 973	611	2 631	530	3 097	138	1 519	900	803	1 711	453	290	469	261	298	486	208	210	77	784	1 365	477	225	27 595
SI	1 004	1 386	2 588	581	1 200	2 842	643	2 254	423	2 867	184	1 402	969	710	1 609	305	264	493	298	369	449	200	240	57	614	477	846	214	25 488
SK	592	667	1 387	272	385	1 205	353	1 273	240	1 268	99	712	341	422	649	170	83	474	145	172	275	193	169	40	433	225	214	302	12 760
Total	81 759	128 409	305 714	49 645	87 982	273 729	61 079	255 831	39 417	259 108	10 567	156 949	61 815	83 271	201 707	16 801	13 789	35 361	14 216	14 511	26 768	10 952	10 549	3 478	48 394	27 595	25 488	12 760	2 317 644

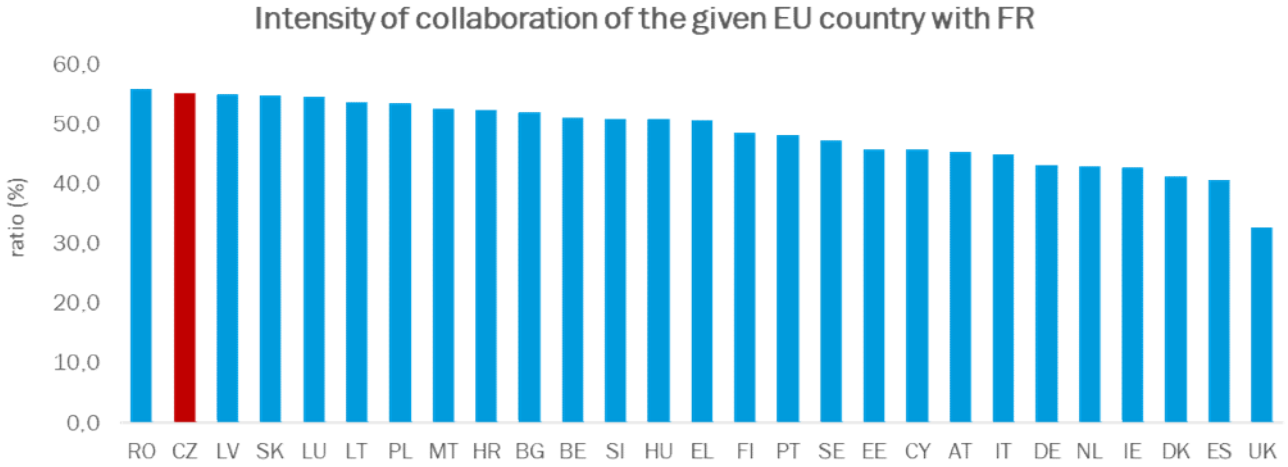
INTENSITY OF COOPERATION OF EU COUNTRIES AND CZ IN FP7 AND H2020

the ratio of the number of common projects of the CR and the given country to the number of projects of the given country

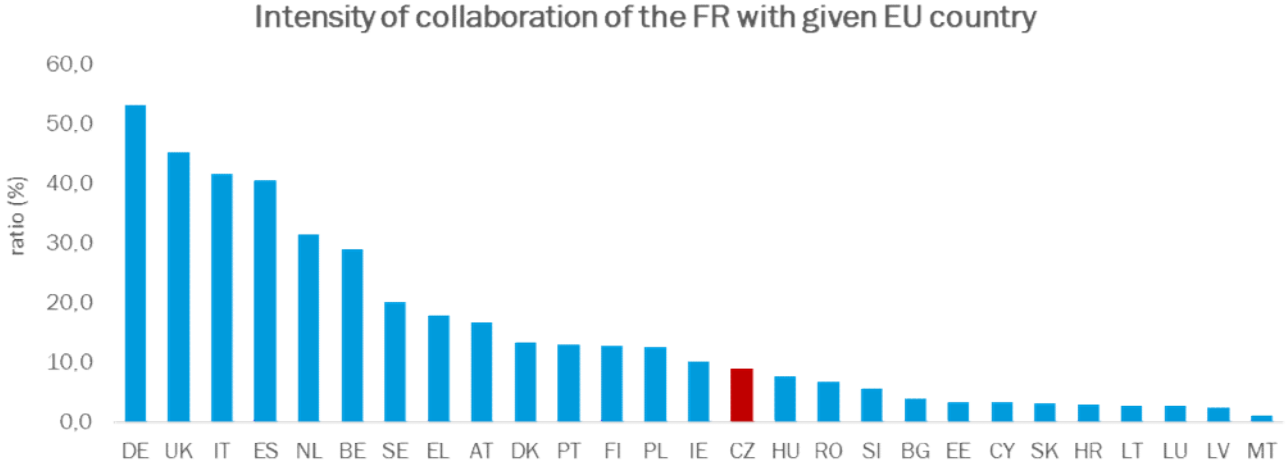


the ratio of the number of common projects of the CR and the given country to the number of projects of the CR

INTENSITY OF COOPERATION OF EU COUNTRIES AND FR IN FP7 AND H2020

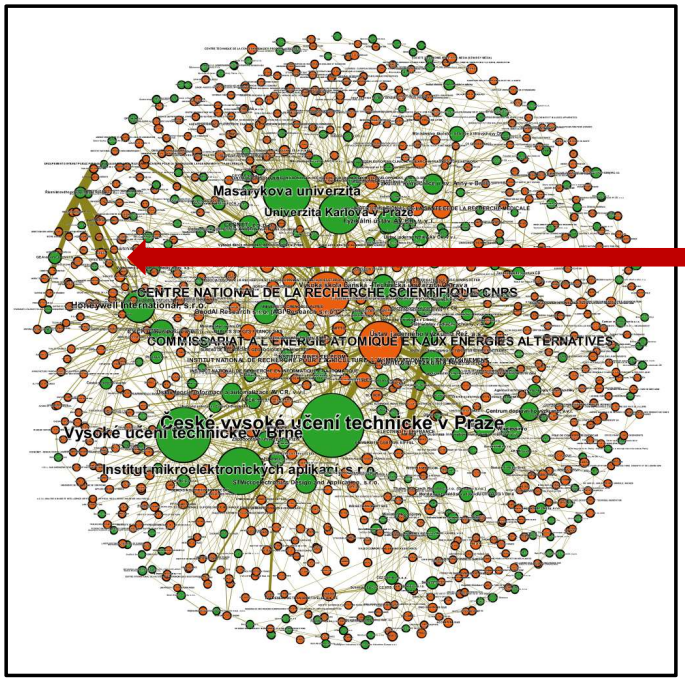


the ratio of the number of common projects of the France and the given country to the number of projects of the given country



the ratio of the number of common projects of the FR and the given country to the number of projects of the FR

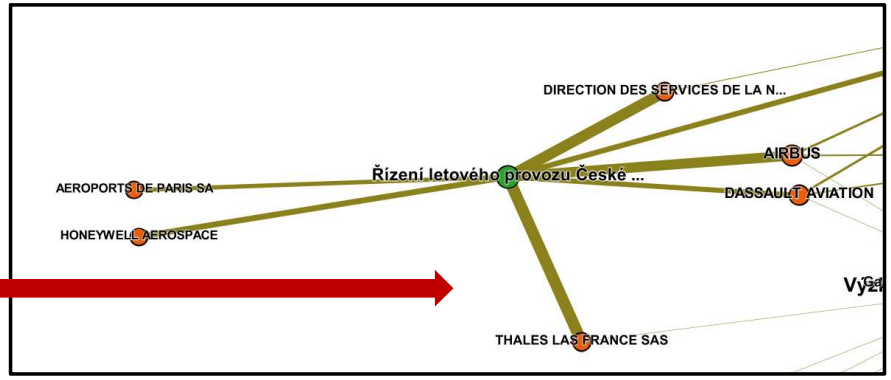
H2020 CZ – FR COLLABORATION NETWORK

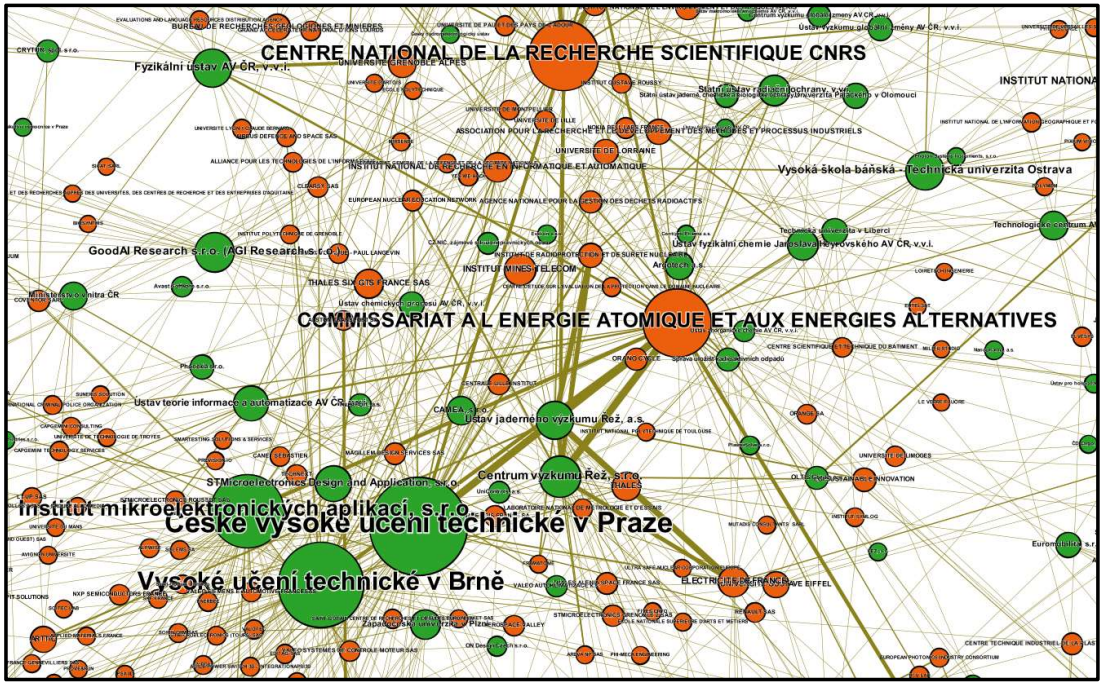


degree centrality

30 projects

SESAR





FR	(71,6%)
CZ	(28,4%)

French institutions

Czech institutions

more than 900 institutions (nodes)

more than 700 projects

more than 1 600 edges (unique connections)

approx. 2 500 links

H2020 CZ – FR: LIST OF THE MOST ACTIVE INSTITUT.

Tabulka dat

Uzle | Hrany | Konfigurace | Přidat uzel | Přidat hranu | Hledat/Nahradit | Importovat tabulky | Exportovat tabulky | Další činnosti

Id	Label	Interval	type	country	Stupeň	Vážený s...	Eccent...	Closeness C...	Harmonic Closeness...	Betweenness C...
999848744	České vysoké učení technické v Praze		HES	CZ	91	298.0	6.0	0.349226	0.416627	0.149086
999873091	Vysoké učení technické v Brně		HES	CZ	77	232.0	6.0	0.345184	0.403733	0.115592
999880657	Masarykova univerzita		HES	CZ	65	222.0	6.0	0.344614	0.395888	0.124627
999697424	Institut mikroelektronických aplikací, s.r.o.		PRC	CZ	64	202.0	6.0	0.321525	0.377385	0.045649
999997930	CENTRE NATIONAL DE LA RECHERCHE SC...		REC	FR	60	302.0	7.0	0.381105	0.443185	0.186711
999992401	COMMISSARIAT A L ENERGIE ATOMIQUE ...		REC	FR	58	366.0	6.0	0.397808	0.45505	0.255335
999923434	Univerzita Karlova v Praze		HES	CZ	54	188.0	6.0	0.331744	0.380679	0.080206
997834830	Honeywell International, s.r.o.		PRC	CZ	40	176.0	6.0	0.314501	0.355828	0.060221
996153820	Centrum výzkumu Řež, s.r.o.		REC	CZ	28	182.0	6.0	0.310294	0.346467	0.026797
999777643	EVEKTOR, spol. s r.o.		PRC	CZ	27	110.0	7.0	0.295575	0.33067	0.024442
910045368	GoodAI Research s.r.o. (AGI Research s.r....		PRC	CZ	26	56.0	6.0	0.317853	0.351098	0.035527
999868144	Vysoká škola báňská - Technická univerzit...		HES	CZ	25	72.0	6.0	0.311683	0.34525	0.034286
999873867	Fyzikální ústav AV ČR, v.v.i.		REC	CZ	25	82.0	6.0	0.304856	0.338902	0.02313
999477428	Ústav jaderného výzkumu Řež, a.s.		PRC	CZ	24	172.0	6.0	0.312617	0.345888	0.02301
999993274	INSTITUT NATIONAL DE RECHERCHE POU...		REC	FR	23	84.0	7.0	0.298534	0.341249	0.079674
956723805	AMIRES s.r.o.		PRC	CZ	23	78.0	7.0	0.29288	0.326099	0.028977
954587865	STMicroelectronics Design and Application...		PRC	CZ	22	50.0	6.0	0.303747	0.336048	0.005873
999618175	Ústav teorie informace a automatizace AV...		REC	CZ	21	76.0	6.0	0.305973	0.337984	0.012891
994491822	Fakultní nemocnice u sv. Anny v Brně		HES	CZ	21	48.0	8.0	0.290637	0.326132	0.0263
999589463	CESNET, z.s.p.o.		REC	CZ	21	80.0	6.0	0.323017	0.352236	0.03028
999806161	Wirelessinfo		REC	CZ	20	46.0	7.0	0.293085	0.323385	0.031187
999997833	INSTITUT NATIONAL DE LA SANTE ET DE ...		REC	FR	19	70.0	7.0	0.302646	0.345001	0.030867
999450171	Centrum dopravního výzkumu, v.v.i.		REC	CZ	18	36.0	7.0	0.294741	0.324482	0.017304
999849326	INSTITUT MINES-TELECOM		HES	FR	17	48.0	7.0	0.306872	0.348035	0.012118
998227389	Ústav fyziky atmosféry AV ČR, v.v.i.		REC	CZ	16	46.0	6.0	0.304411	0.333114	0.022052
999511863	Ústav fyzikální chemie Jaroslava Heyrovsk...		REC	CZ	16	42.0	6.0	0.312383	0.340559	0.020877
958902231	Státní ústav radiační ochrany, v.v.i.		REC	CZ	16	48.0	6.0	0.30846	0.337186	0.012579
999926829	ELECTRICITE DE FRANCE		PRC	FR	16	92.0	7.0	0.28547	0.324953	0.020883
999843894	Západočeská univerzita v Plzni		HES	CZ	15	34.0	6.0	0.30846	0.337026	0.009438
999547074	INSTITUT NATIONAL DE RECHERCHE EN I...		REC	FR	15	52.0	7.0	0.312617	0.352826	0.02048

CZ – FR INSTITUTIONS – COLL. IN H2020

Source_name	Source_type	Source_country	Target_name	Target_type	Target_country	Projects	notes
Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	THALES LAS FRANCE SAS	PRC	FR	30	
DIRECTION DES SERVICES DE LA NAVIGATION AERIENNE	PUB	FR	Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	28	
Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	AIRBUS	PRC	FR	26	
České vysoké učení technické v Praze (Czech Technical University in Prague)	HES	CZ	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	REC	FR	19	HESCZ- RECFR
Centrum výzkumu Řež, s.r.o. (Research Centre Řež)	REC	CZ	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	REC	FR	19	RECCZ - FR
Ústav jaderného výzkumu Řež, a.s. (Nuclear Research Institute Řež)	PRC	CZ	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	REC	FR	17	
Ústav jaderného výzkumu Řež, a.s. (Nuclear Research Institute Řež)	PRC	CZ	ELECTRICITE DE FRANCE	PRC	FR	16	
Masarykova univerzita (Masaryk University)	HES	CZ	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	REC	FR	15	HESCZ- RECFR
HONEYWELL AEROSPACE	PRC	FR	Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	15	
Ústav jaderného výzkumu Řež, a.s. (Nuclear Research Institute Řež)	PRC	CZ	INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE	REC	FR	14	
Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	THALES AVS FRANCE SAS	PRC	FR	14	
Řízení letového provozu České republiky, s.p. (Air Navigation Services of the CR)	PUB	CZ	DASSAULT AVIATION	PRC	FR	13	
Univerzita Karlova v Praze (Charles University)	HES	CZ	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	REC	FR	12	HESCZ- RECFR
Centrum výzkumu Řež, s.r.o. (Research Centre Řež)	REC	CZ	INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE	REC	FR	12	RECCZ - FR

CZ – FR COLLABORATION IN AREAS OF FP7 AND H2020

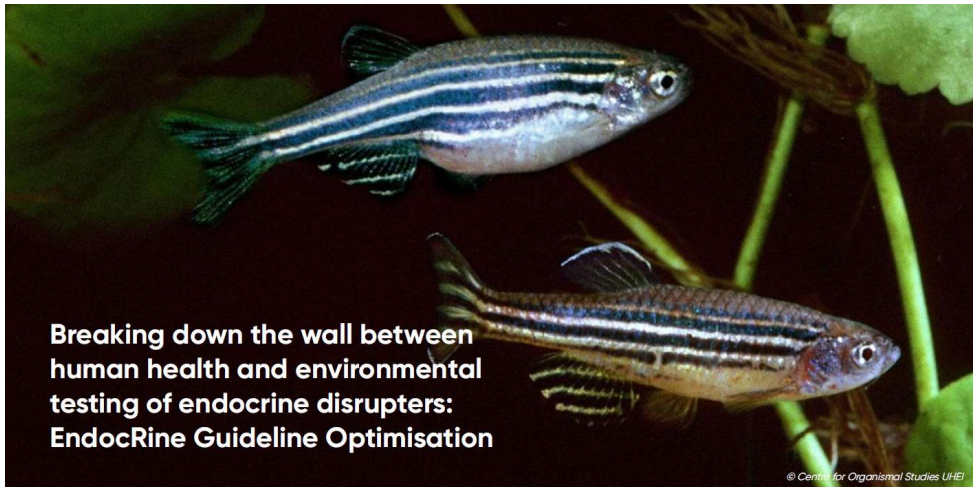
FP7	CZ participants	FP7 joint projects	FR participants
ICT	**91**	**74**	**143**
NMP	**89**	**65**	**150**
TPT	**73**	**63**	**233**
INFRA	**72**	**62**	**125**
EURATOM (Fission)	**80**	**56**	**187**
HEALTH	56	48	104
KBBE - FOOD	55	48	123
ENV	50	43	64
PEOPLE - MSCA	45	43	62
SP1-JTI	54	28	152
SME	28	25	33
SECURITY	21	20	48
SPACE	24	20	64
SSH	20	20	24
SiS	21	16	27
ENERGY	15	12	27
COH	2	2	4
Fusion	3	1	4
GA	2	1	2
REGIONS	2	1	3
TOTAL	**803**	**648**	**1 579**

H2020	CZ participants	H2020 joint projects	FR participants
INFRA	**110**	**93**	**206**
LEIT-ICT	**137**	**89**	**334**
TPT	**101**	**88**	**378**
MSCA	**64**	**57**	**81**
EURATOM (Fission)	**86**	**55**	**185**
HEALTH	**59**	**53**	**154**
ENERGY	**75**	**51**	**92**
FOOD	**64**	**51**	**105**
ENV	36	31	63
LEIT-SPACE	28	21	39
LEIT-ADVMAT	***20***	***18***	***36***
FET	18	17	43
LEIT-ADVMANU	***18***	***17***	***32***
SECURITY	24	17	38
SOCIETY	20	16	23
TWINING	7	7	8
LEIT-BIOTECH	***8***	***6***	***9***
GENDEREQ	5	5	7
LEIT-NMP	***6***	***5***	***11***
SWAFS-CROSST	5	5	6
CAREER	4	4	5
GOV	4	4	5
INNOSUPSME	4	4	6
INEGSOC	3	3	3
ERC	1	1	1
LEIT	1	1	3
SCIENCE	1	1	1
SOCCHAL-CROSST	1	1	1
TOTAL	**910**	**721**	**1 875**

CZ AND FR IN H2020 PROJECT - ERGO

ERGO
EndocRine Guideline Optimisation

@ERGO_EU
info@ergo-project.eu
www.ergo-project.eu



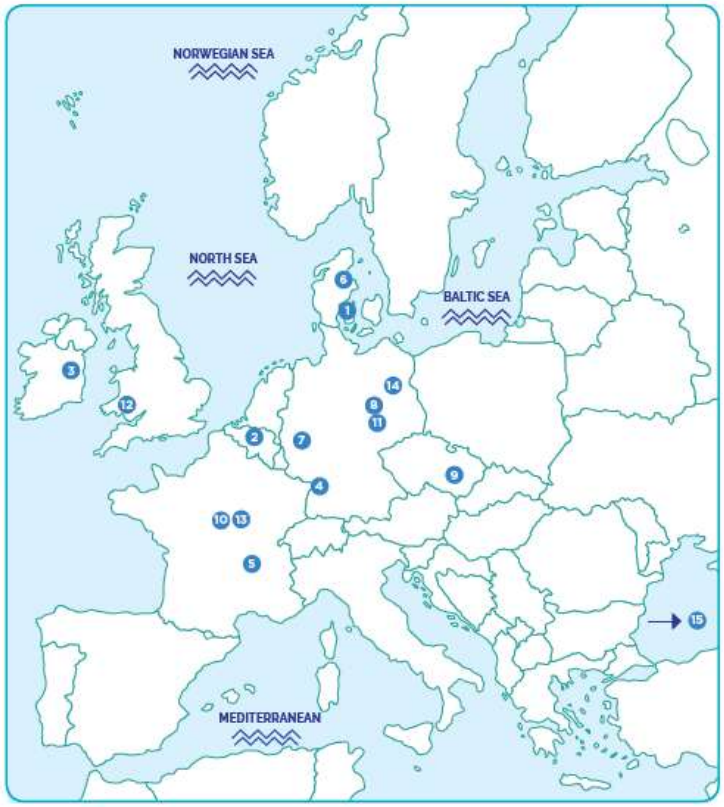
The ERGO consortium brings together 15 partners from eight countries and is coordinated by Syddansk Universitet (SDU). The consortium consists of 10 research bodies, two industry companies, one small to medium enterprise, one environmental protection agency and one consultancy.

CONSORTIUM

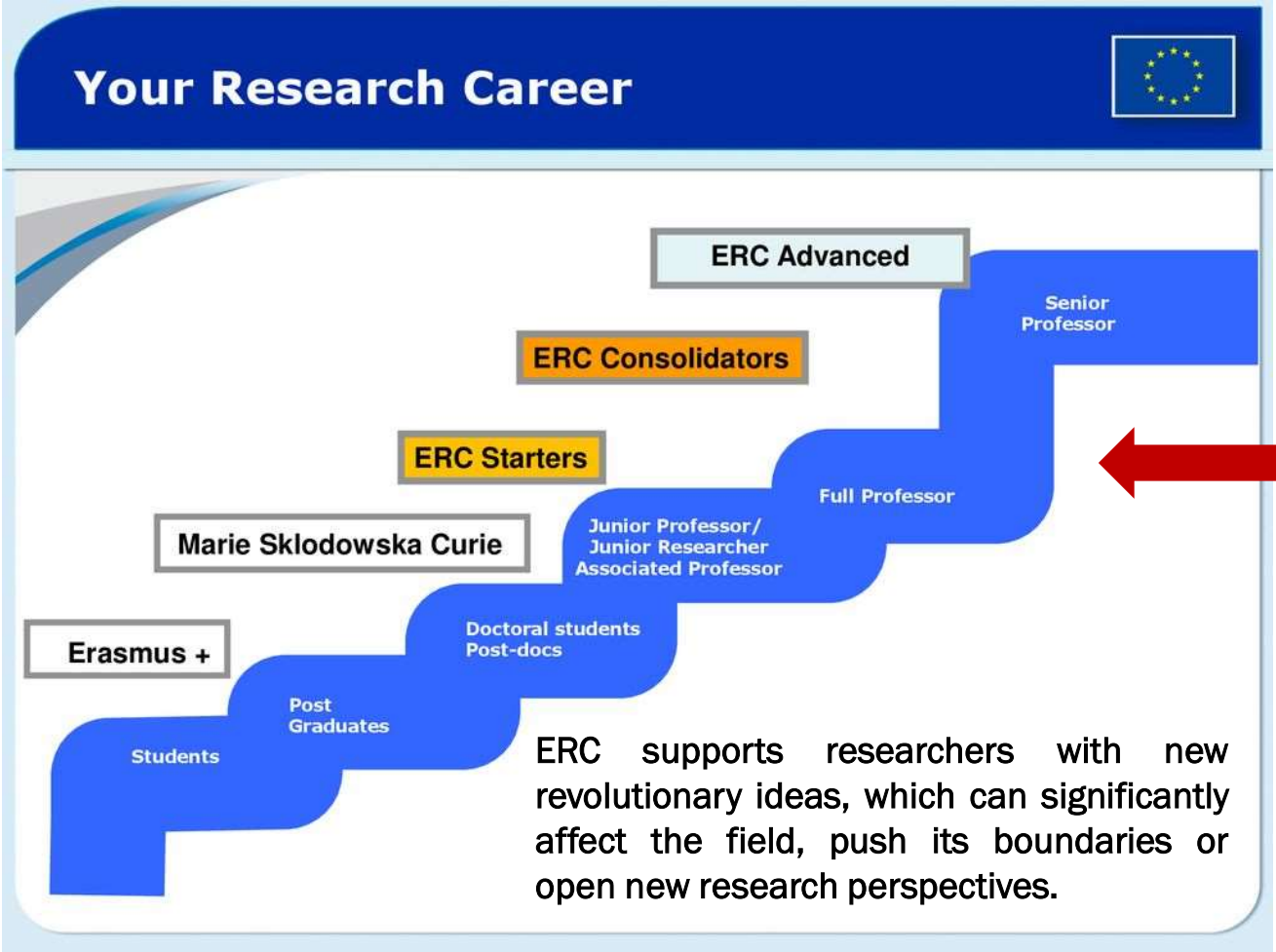
The 15-partner strong **ERGO** consortium is based in eight different countries and brings together a well-balanced mix of research bodies, industry, small to medium enterprises, agencies and consultancies.

1. Syddansk Universitet (SDU)
2. University of Antwerp (UA)
3. AquaTT UETP CLG (AquaTT)
4. Ruprecht-Karls-Universität Heidelberg (UHEI)
5. École Normale Supérieure de Lyon (ENSL)
6. Aarhus University (AU)
7. BASF SE (BASF)
8. German Environment Agency (UBA)
9. Masarysk University (MU)
10. Centre National de la Recherche Scientifique (CNRS)
11. Helmholtz Centre for Environmental Research GmbH - UFZ (UFZ)
12. Peter Matthiessen (MATT)
13. L'Oréal (LOR)
14. Forschungsverbund Berlin (IGB)
15. Public University Corporation Yokohama City University (YCU)

ERGO is part of the EURION cluster of eight research projects from the Call 'New Testing and Screening Methods to Identify Endocrine Disrupting Chemicals' funded by the EU Horizon 2020 Research and Innovation programme. Each project is focusing on a different aspect of new testing and screening methods identifying EDCs.



MOBILITY OF RESEARCHERS

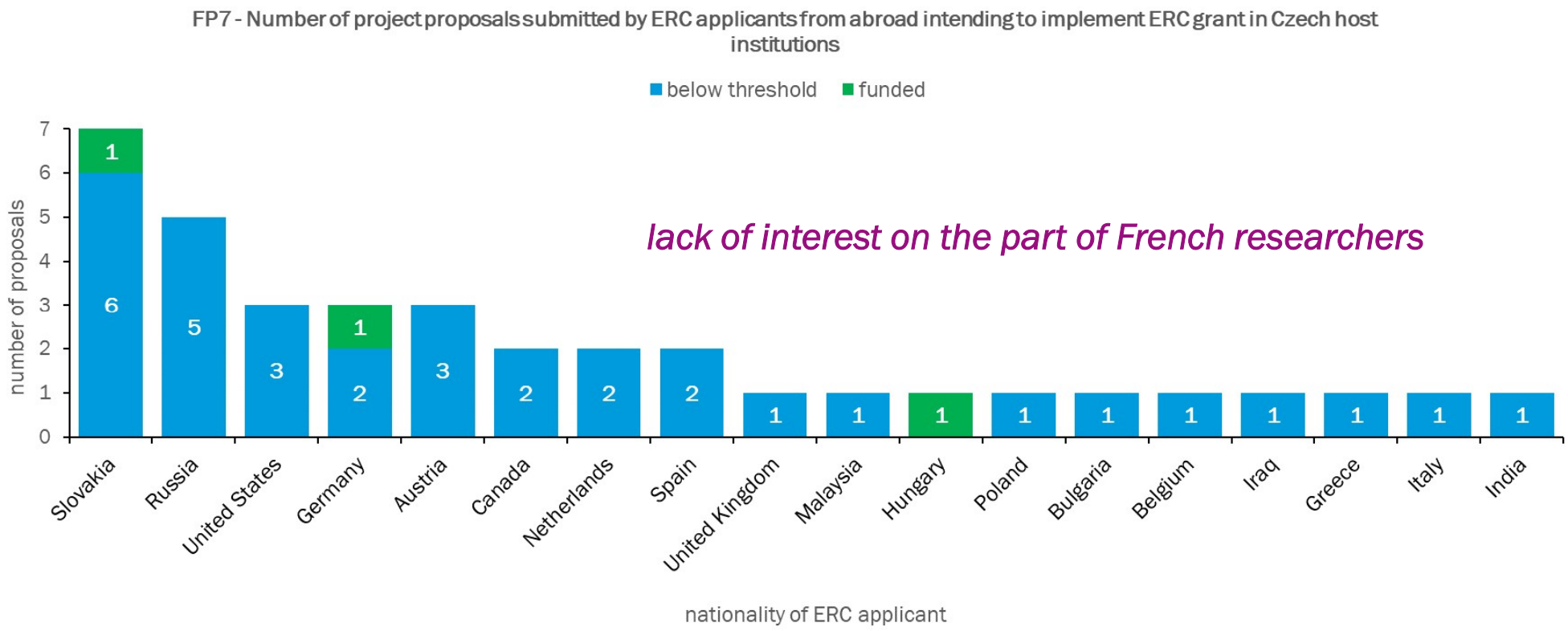


https://slideplayer.com/slide/17136196/

The European Research Council (ERC) was established in 2007. It funds **frontier research (border research)** in all disciplines. The ERC supports researchers and their teams to push the frontiers of knowledge and to pursue high-risk/high-gain research.

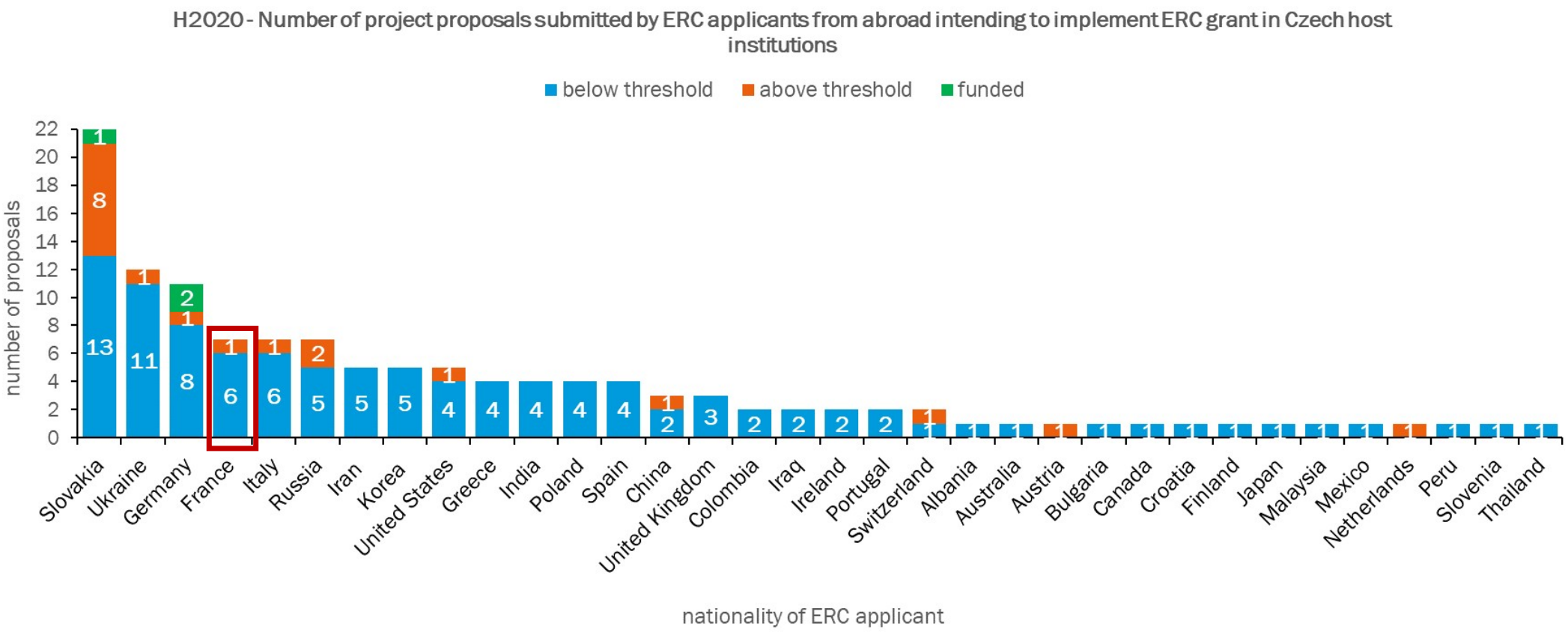
The ERC does not support networks or international consortia, but Principal Investigators (PIs) and their research teams. The solver can be of any nationality, but the chosen host institution must be located in an EU Member State or in a country associated with the EU Framework Program. The only evaluation criterion is scientific excellence - both the project design and the solver.

FP7 ERC MOBILITY: ALL → CZ

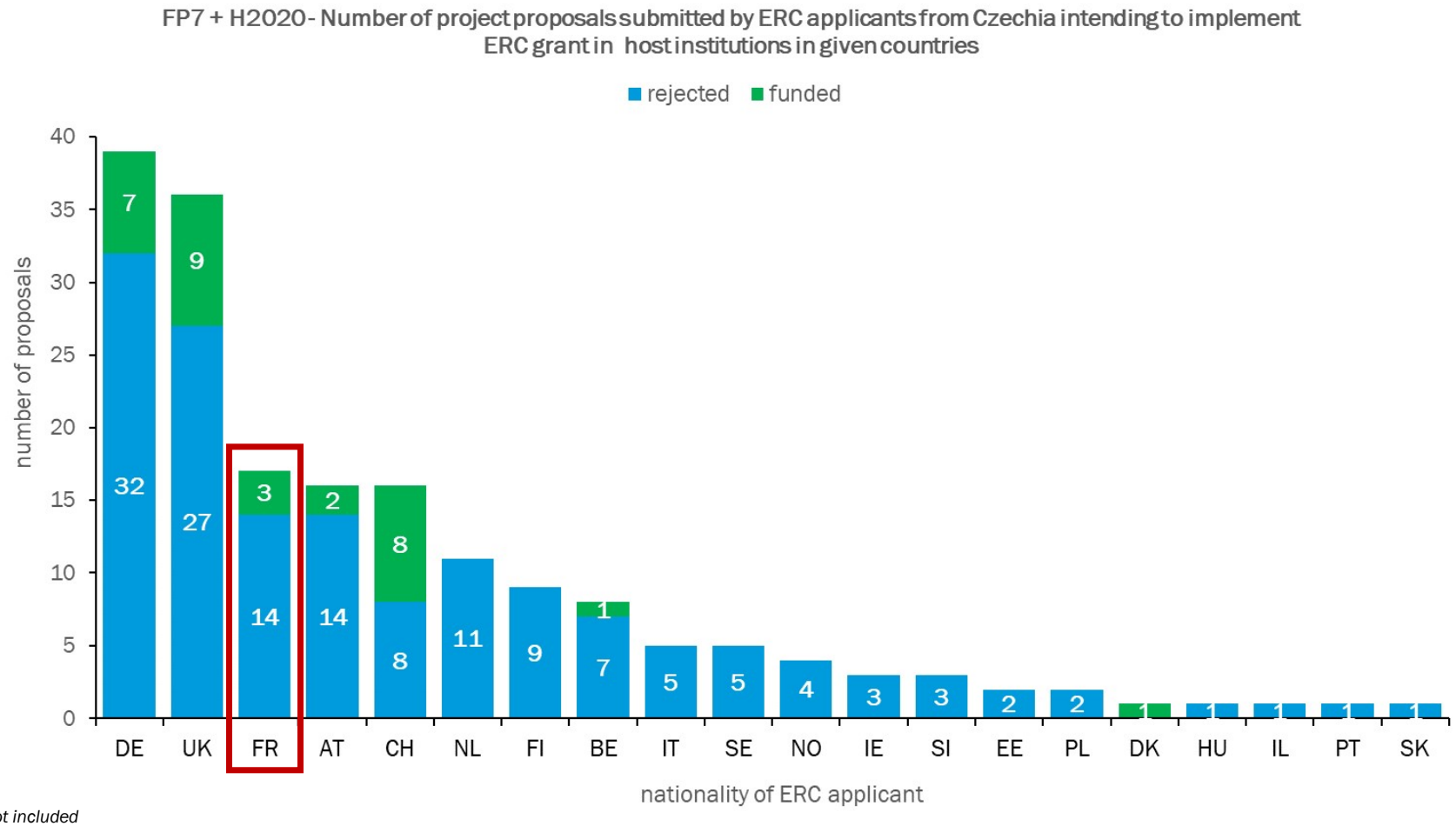


lack of interest on the part of French researchers

H2020 ERC MOBILITY: ALL → CZ

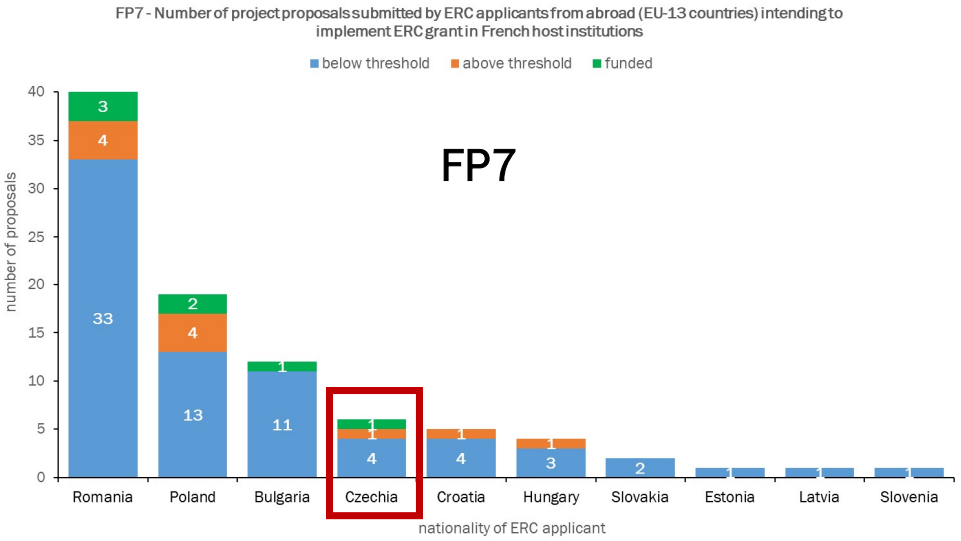


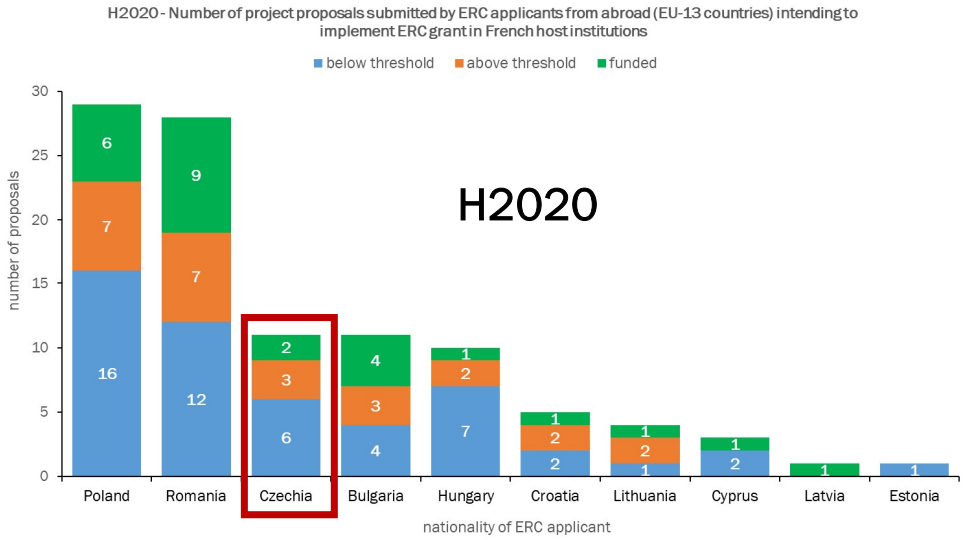
FP7, H2020 ERC PROPOSALS SUBMITTED BY CZECH RESEARCHERS THROUGH HIs ABROAD



* *CZ is not included*

ERC MOBILITY: EU-13 → FR



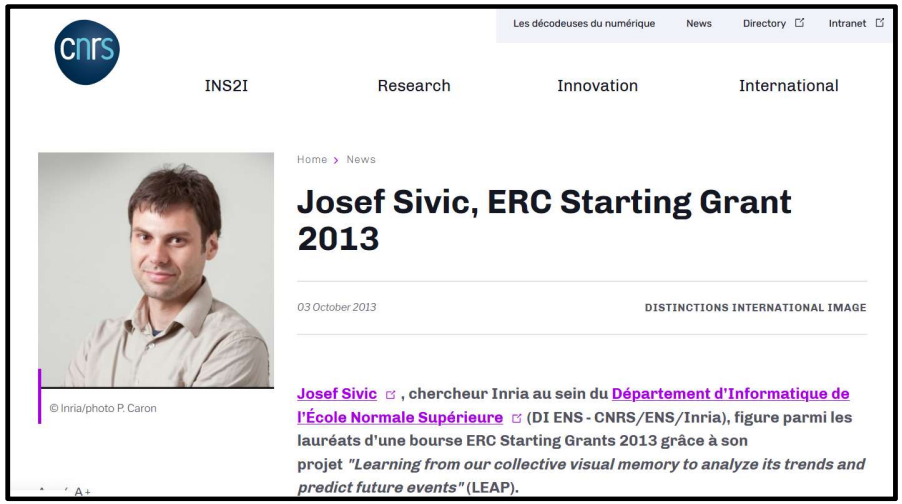


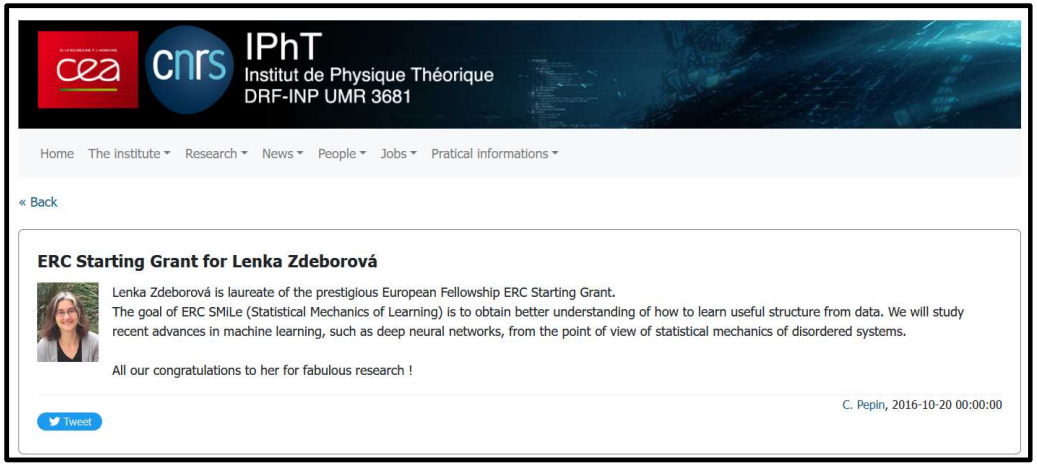
Country	FP7	H2020	Total	Progress (%)
Romania	40	28	68	-30
Poland	19	29	48	53
Bulgaria	12	11	23	-8
Czechia	6	11	17	83
Hungary	4	10	14	150
Croatia	5	5	10	0
Lithuania		4	4	100
Cyprus		3	3	100
Estonia	1	1	2	0
Latvia	1	1	2	0
Slovakia	2		2	-100
Slovenia	1		1	-100

Name	Short Name	Proposals
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	CNRS	8
INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	INRIA	3
UNIVERSITÉ PIERRE ET MARIE CURIE	UPMC	2
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	INSERM	1
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	CEA	1
EA 3958-INSTITUT DES MONDES ANGLOPHONE GERMANIQUE ET ROMAN	IMAGER	1
FONDATION NATIONALE DES SCIENCES POLITIQUES	FNSP	1

PANEL/TYPE	STG	COG	ADG	TOTAL
PE	9	3	1	13
LS	2	1		3
SH	1			1
TOTAL	**12**	**4**	**1**	**17**

FP7, H2020 SUCCESFUL ERC GRANTS SOLVED IN FRANCE BY CZECH RESEARCHERS





https://www.ins2i.cnrs.fr/en/node/1125

https://www.ipht.fr/en/Phocea/Vie_des_labos/News/index.php?id_news=771

https://who.rocq.inria.fr/Martin.Vohralik/

FP7 MCA - IF, H2020 MSCA - IF

Individual fellowships (IF) for most promising experienced researchers to develop their skills through international or inter-sector mobility

Main objective - to increase the creative and innovation potential of ER = post-docs

- ❑ opportunity to gain new knowledge, participate in research projects in the EU or in third countries
- ❑ start an independent scientific career
- ❑ go back to the EU, to the home institution

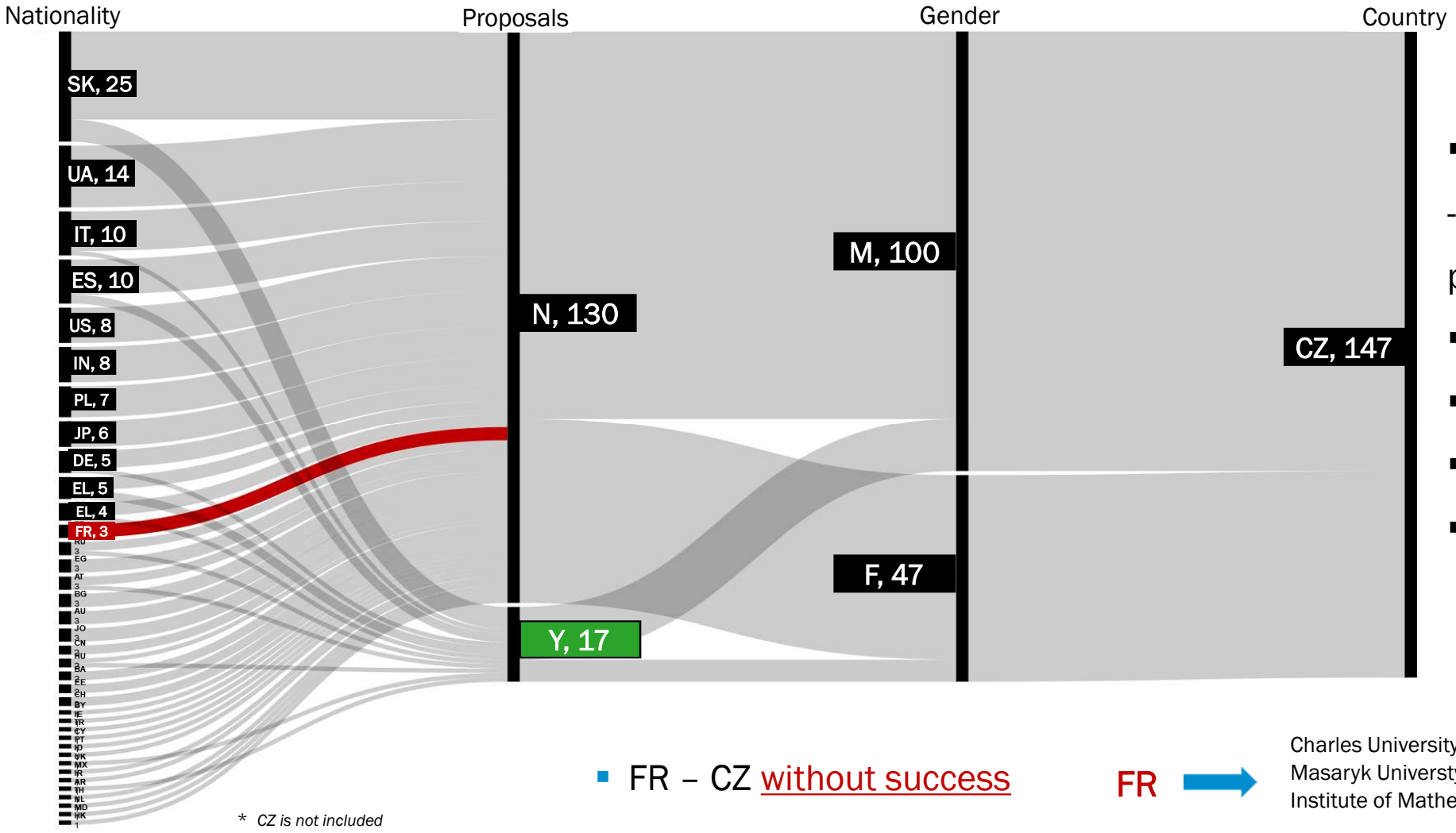
"Bottom-up" approach

- researchers chooses the research topic

- it covers all types of research from basic to industrial research

- includes all scientific disciplines

FP7 MCA IF MOBILITY: → CZ



- 37 nations

---

proposals

- 54 % EU
- 17 % SK
- 9,5 % UA
- 7% IT, ES

- 40 Czech HIs

- FR – CZ <u>without success</u>

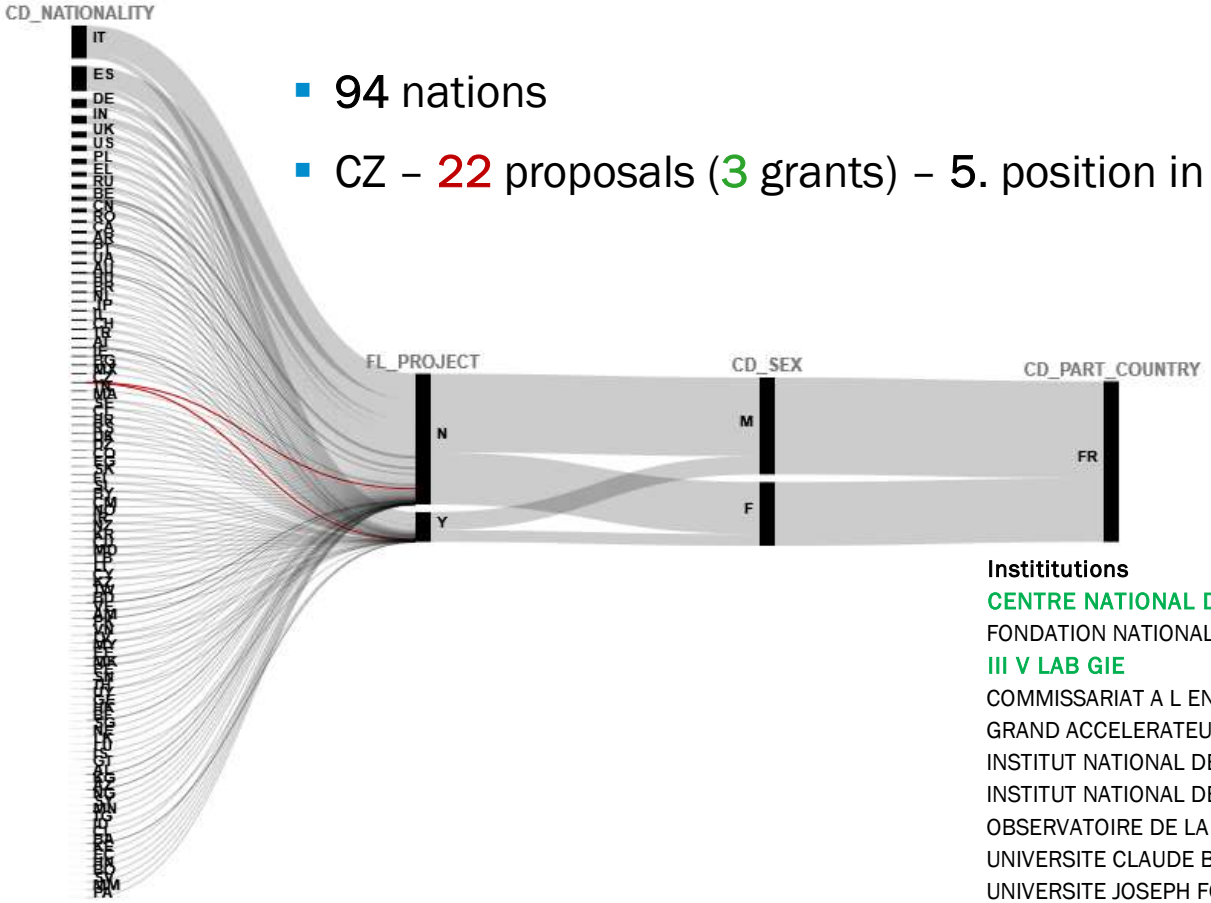
FR →

Charles University
Masaryk Universty
Institute of Mathematics of the CAS

* *CZ is not included*

FP7 MCA IF MOBILITY: → FR

Nationality	RES
IT	714
ES	541
DE	198
IN	178
UK	136
US	123
PL	**118**
RU	101
EL	101
BE	91
CN	90
RO	**61**
CA	61
AR	59
PT	58
UA	49
AU	45
HU	**42**
BR	39
JP	36
NL	36
IL	35
CH	34
TR	31

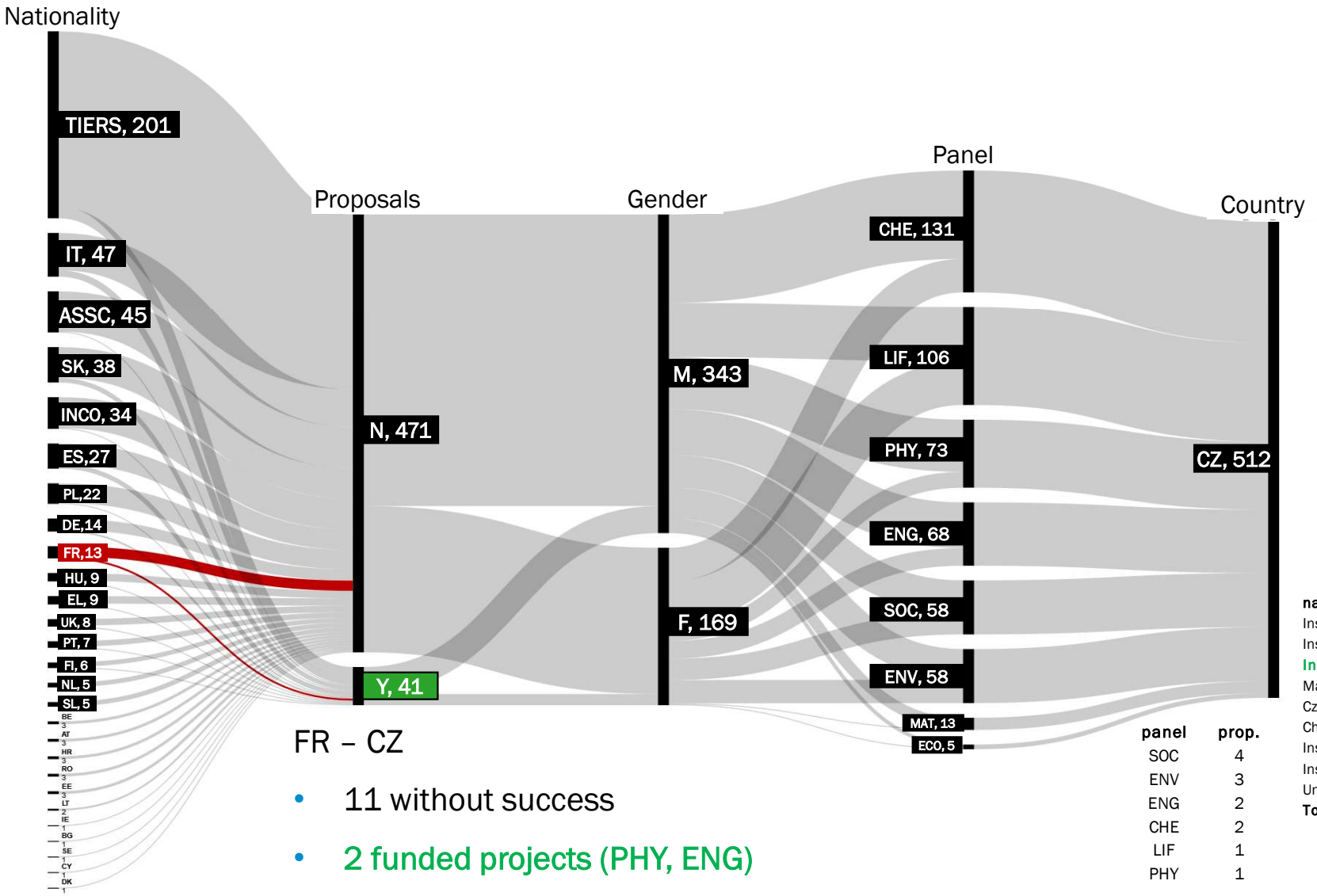


- 94 nations
- CZ – 22 proposals (3 grants) – 5. position in EU-13

Instititutions	CZ Proposals
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	6 (2)
FONDATION NATIONALE DES SCIENCES POLITIQUES	3
III V LAB GIE	2 (1)
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	1
GRAND ACCELERATEUR NATIONAL D'IONS LOURDS	1
INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	1
INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	1
OBSERVATOIRE DE LA COTE D'AZUR (OCA)	1
UNIVERSITE CLAUDE BERNARD LYON 1	1
UNIVERSITE JOSEPH FOURIER GRENOBLE 1	1
UNIVERSITE LOUIS PASTEUR	1
UNIVERSITE PAUL SABATIER TOULOUSE III	1
UNIVERSITE PIERRE ET MARIE CURIE	1

* *FR is not included*

H2020 MSCA IF MOBILITY: → CZ



FR – CZ

- 11 without success
- 2 funded projects (PHY, ENG)

panel	prop.
SOC	4
ENV	3
ENG	2
CHE	2
LIF	1
PHY	1

- 65 nations

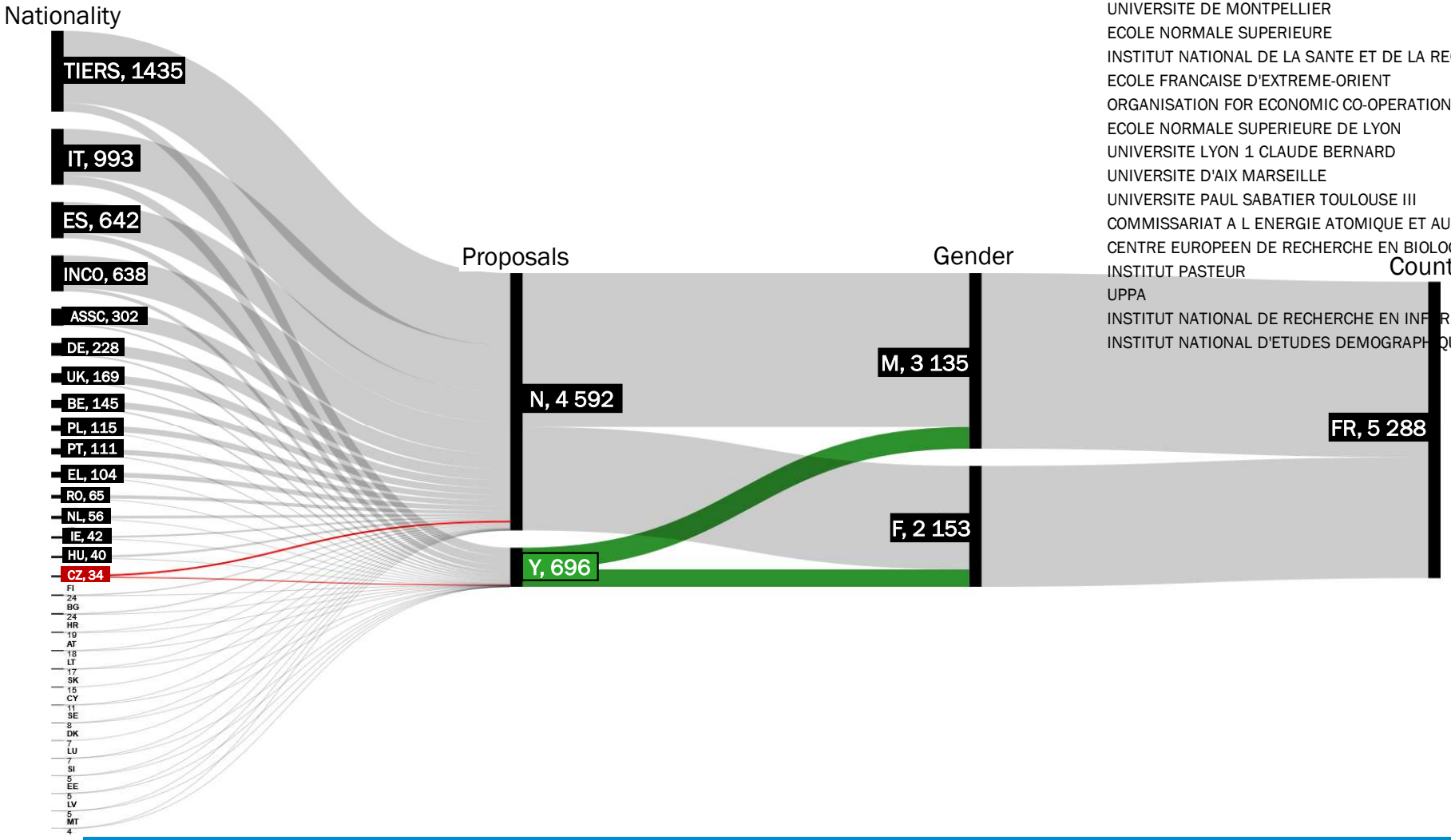
---

proposals

- 45 % EU
- 7,4 % SK
- 39 % TIERS

name	proposals
Institute of Botany of the CAS	2
Institute of Ethnology of the CAS	2
Institute of Physics of the CAS	**2**
Masaryk University	2
Czech Technical University in Prague	1
Charles University	1
Institute of Biotechnology of the CAS	1
Institute of Organic Chemistry and Biochemistry of the CA	1
University of South Bohemia	1
Total	**13**

H2020 MSCA IF MOBILITY: → FR



Institutions	proposals
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	14 (2)
UNIVERSITE DIJON BOURGOGNE	2 (1)
UNIVERSITE DE MONTPELLIER	2
ECOLE NORMALE SUPERIEURE	2 (1)
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	2
ECOLE FRANCAISE D'EXTREME-ORIENT	1
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT	1
ECOLE NORMALE SUPERIEURE DE LYON	1
UNIVERSITE LYON 1 CLAUDE BERNARD	1
UNIVERSITE D'AIX MARSEILLE	1
UNIVERSITE PAUL SABATIER TOULOUSE III	1
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	1
CENTRE EUROPEEN DE RECHERCHE EN BIOLOGIE ET MEDECINE	1
INSTITUT PASTEUR	1
UPPA	1
INSTITUT NATIONAL DE RECHERCHE EN INF RMATIQUE ET AUTOMATIQUE	1
INSTITUT NATIONAL D'ETUDES DEMOGRAPH QUES	1

- 109 nations

---

proposals

- 55 % EU
- 34 CZ (4 funded – 2x CHE, 1x LIF)

CZECH AND FRANCE IN SEWP

- SEWP aims to bridge the gap between Member States and regions in national R&D and innovation systems, to encourage participation in FPs and to contribute dissemination of excellent research in the European Research Area.

  - Foster participation of countries with lower research potential in FPs

  - Facilitate collaborative links between excellent research institutions in from research developed country with institutions from countries with lower research potential

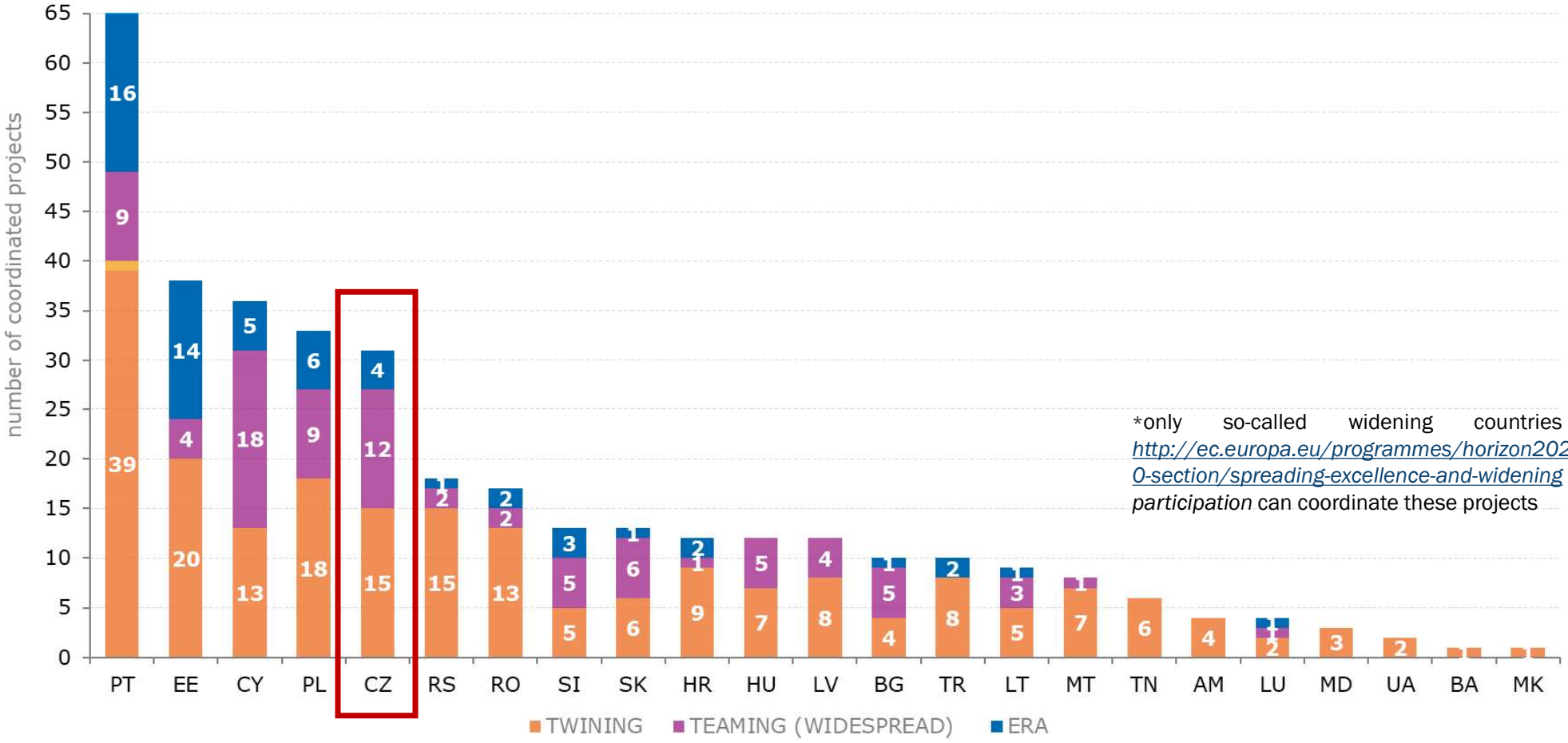
  - Contribute to reducing R&I divide

"ERA chairs" make it possible to recruit excellent scientists at universities and research institutions that have a high potential for the development of research excellence.

"Teaming" supports the construction of new or modernization of existing centers of excellence on the basis of partnerships with renowned research institutions abroad.

„Twinning“ helps knowledge transfer and the exchange of best practices between research institutions and leading foreign partners.

COORDINATION OF SEWP PROJECTS IN THE H2020 PROGRAMME - TWINING, TEAMING, ERA CHAIRS



*only so-called widening countries - see http://ec.europa.eu/programmes/horizon2020/en/h2020-section/spreading-excellence-and-widening *participation* can coordinate these projects

R&D LEADING COUNTRIES IN H2020 TWINING PROJECTS COORDINATED BY CZ

Twinning: R&D leading country	number of funded projects coordinated by CZ with parcipation of R&D leading	number of institutions from R&D leading country in funded projects	number of proposals coordinated by CZ with parcipation of R&D leading country	number of institutions from R&D leading country in proposals
DE	5	7	93	112
IT	3	2	45	50
UK	4	4	43	47
FR	**6**	**7**	**32**	**38**
AT	5	5	33	35
SE	2	2	36	37
NL	2	3	31	36
ES	2	2	19	19
CH	2	2	16	17
BE	1	1	14	14
IE	1	1	11	11
NO			9	9
DK	3	2	5	5
FI	1	1	6	6
EL	1	1	5	5
IL	1	1	5	5

UNIVERSITE GRENOBLE ALPES

UNIVERSITE DE PARIS

SORBONNE UNIVERSITE

INSTITUT NATIONAL POLYTECHNIQUE DE TOULOUSE

UNIVERSITE PAUL SABATIER TOULOUSE III

UNIVERSITE LYON 1 CLAUDE BERNARD

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS

R&D LEADING COUNTRIES IN H2020 TEAMING PROJECTS COORDINATED BY CZ

Teaming: R&D leading country	number of funded projects coordinated by CZ with parcipation of R&D leading country	number of institutions from R&D leading country in funded projects	number of proposals coordinated by CZ with parcipation of R&D leading country	number of institutions from R&D leading country in proposals
DE	5	6	22	28
AT	4	3	9	11
UK	4	2	7	9
CH	2	1	4	4
BE	1	1	3	3
IT			3	4
FR			2	2

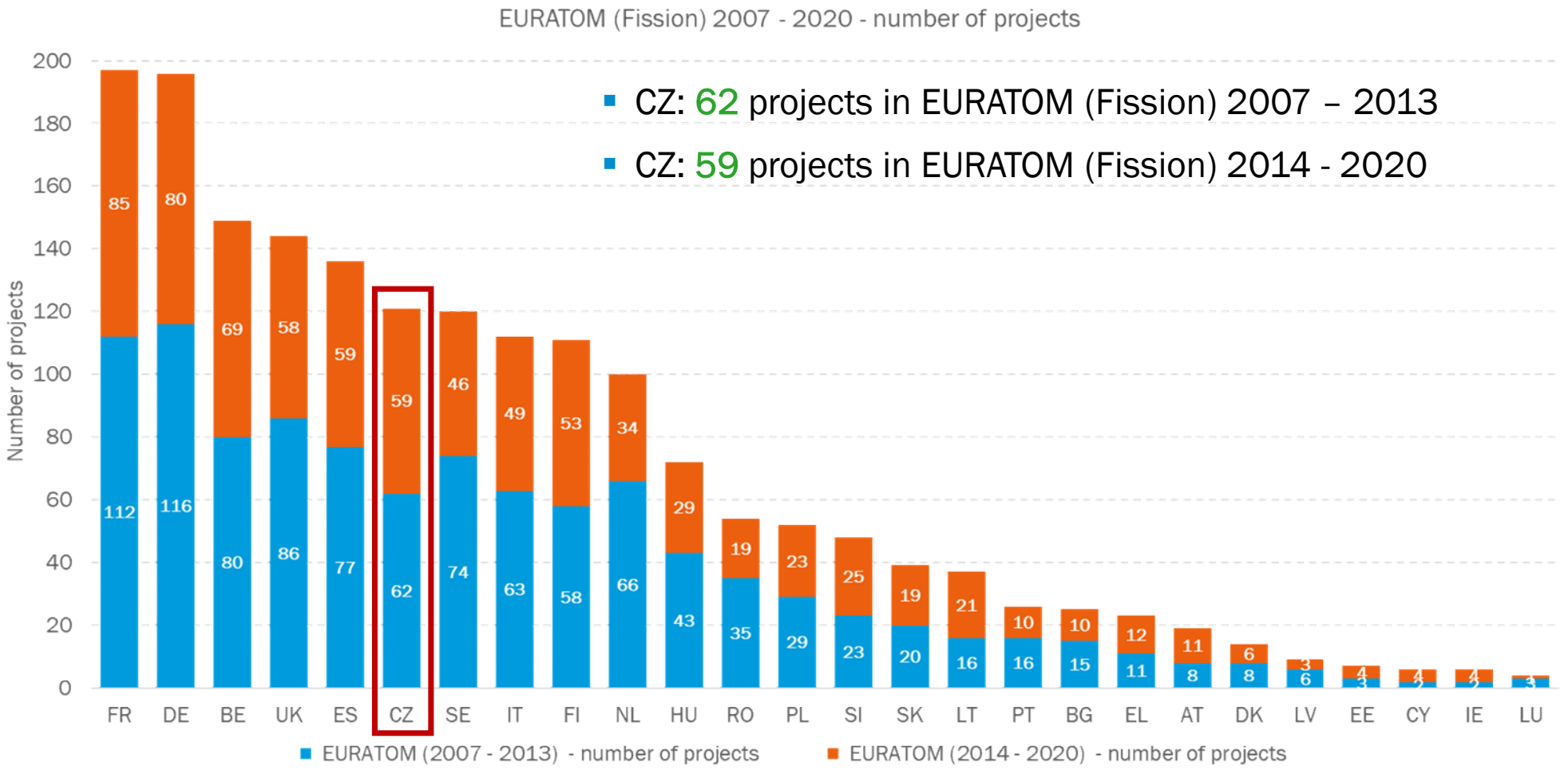
NUCLEAR RESEARCH - EURATOM

https://www.reuters.com/business/energy/france-czech-republic-others-push-nuclear-eus-green-investment
10-11/

https://www.rfi.fr/en/france/20211011-france-leads-charge-to-label-nuclear-power-as-green-under-eu-taxonomy-rules

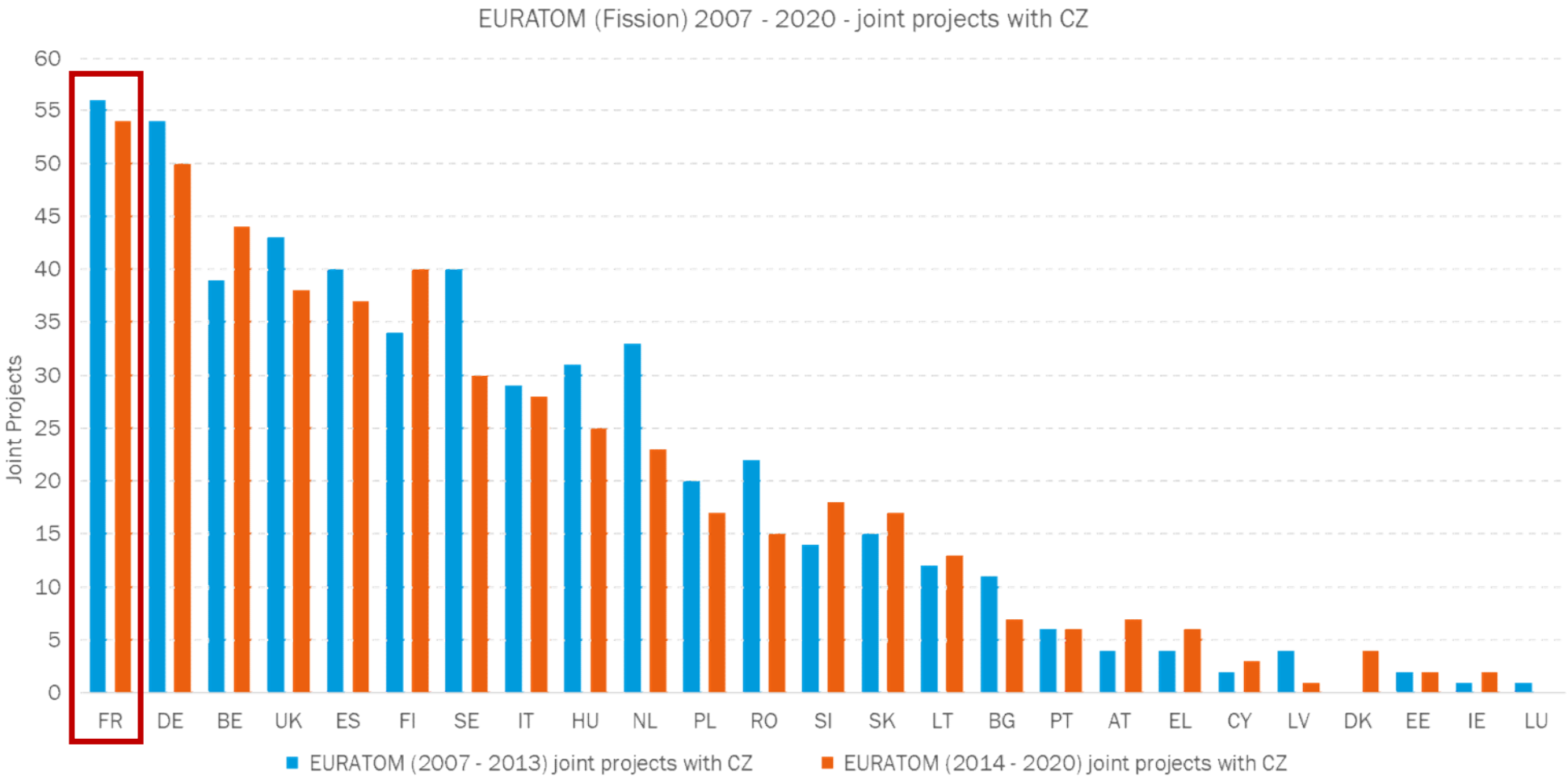
https://www.mpo.cz/en/guidepost/for-the-media/press-releases/czech-republic-and-france-has-been-preparing-a-nuclear-alliance-of-european-union-member-states--263929/

EURATOM (FISSION) 2014 – 2020: PARTICIPATION

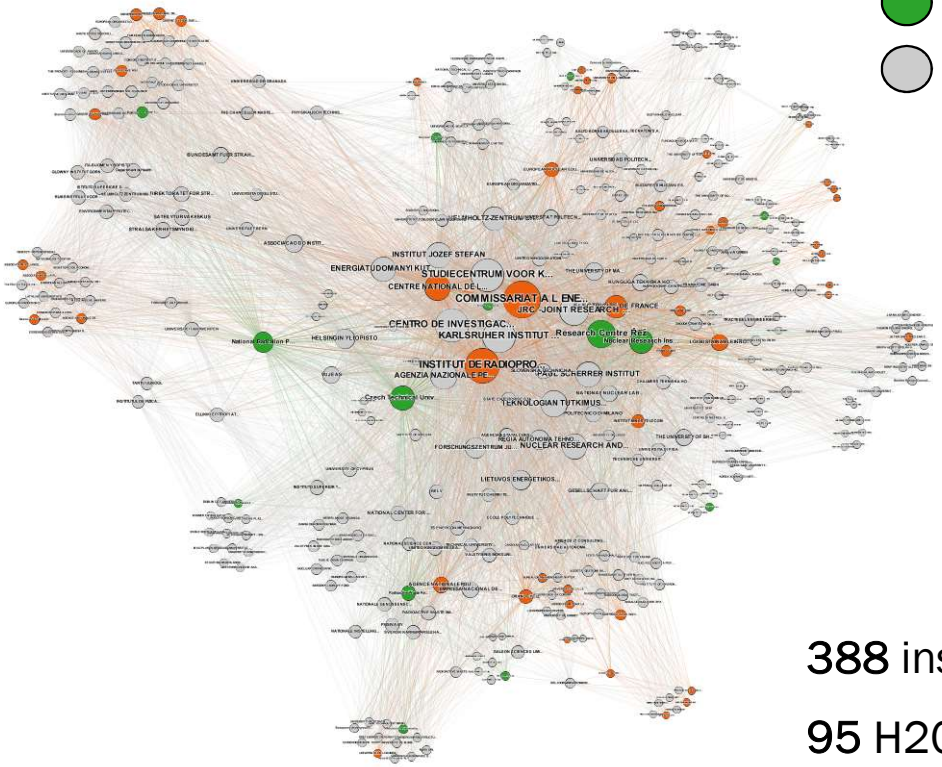


- CZ: 62 projects in EURATOM (Fission) 2007 – 2013
- CZ: 59 projects in EURATOM (Fission) 2014 - 2020

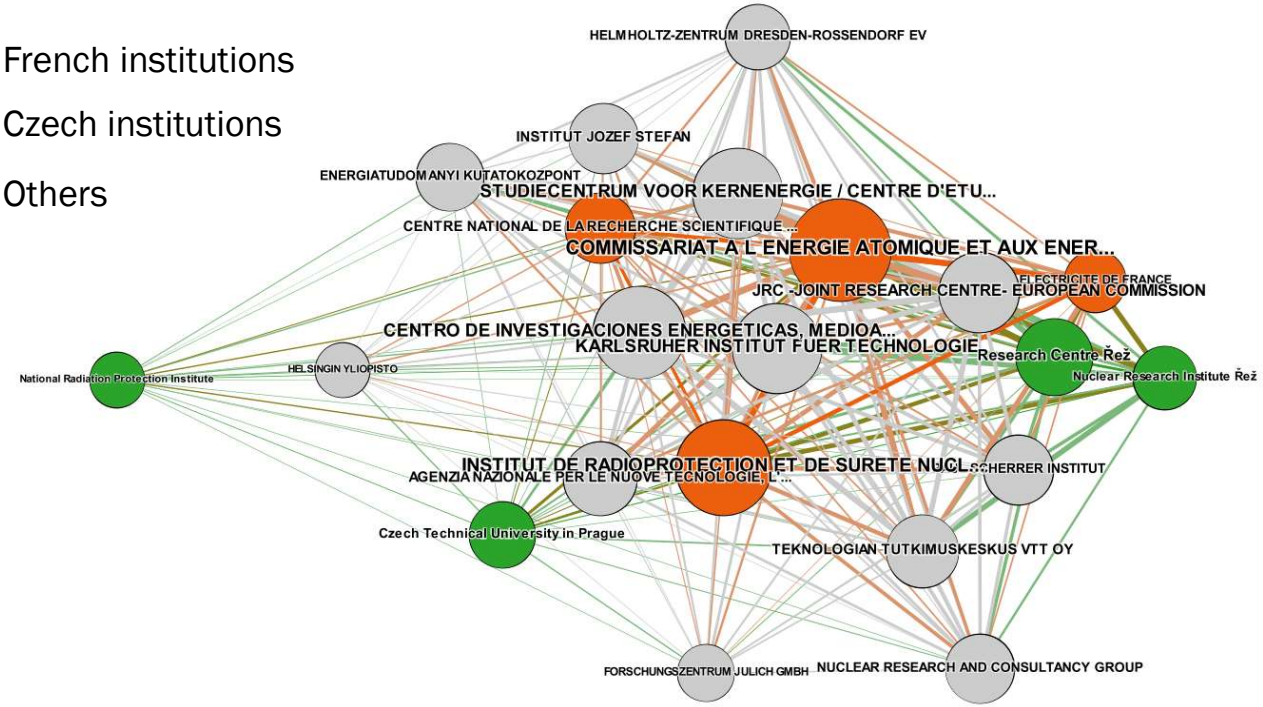
EURATOM (FISSION) – COLLABORATION WITH CZ



EURATOM (FISSION) 2014 – 2020: COLLAB. NETWORK



- French institutions
- Czech institutions
- Others



388 institutions (CZ – 15, FR – 48)

95 H2020 projects

TOP INSTITUTIONS IN EURATOM 2014 - 2020, FR – CZ COOPERATION

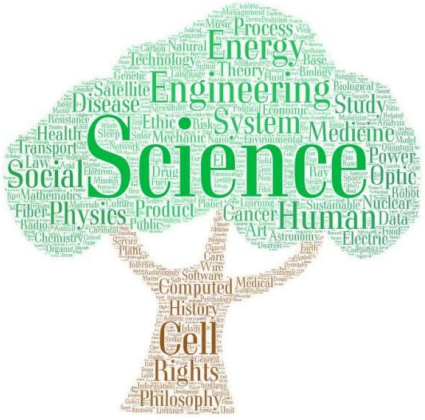
Institution	Sector	Country	EU Status	Participations
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	**REC**	**FR**	**EU-15**	**64**
STUDIECENTRUM VOOR KERNENERGIE / CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE	REC	BE	EU-15	46
INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE	**REC**	**FR**	**EU-15**	**41**
JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	REC	EU	EU	40
ELECTRICITE DE FRANCE	**PRC**	**FR**	**EU-15**	**37**
TEKNOLOGIAN TUTKIMUSKESKUS VTT OY	REC	FI	EU-15	36
CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT	REC	ES	EU-15	35
KARLSRUHER INSTITUT FUER TECHNOLOGIE	HES	DE	EU-15	34
CENTRUM VÝZKUMU ŘEŽ, s.r.o.	**REC**	**CZ**	**EU-13**	**29**
PAUL SCHERRER INSTITUT	REC	CH	AC	28
ÚJV ŘEŽ, a.s.	**PRC**	**CZ**	**EU-13**	**27**
AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	REC	IT	EU-15	27
NUCLEAR RESEARCH AND CONSULTANCY GROUP	REC	NL	EU-15	21
INSTITUT JOZEF STEFAN	REC	SI	EU-13	20
HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV	REC	DE	EU-15	18
NATIONAL NUCLEAR LABORATORY LIMITED	PRC	UK	EU-15	17
LGI CONSULTING	**PRC**	**FR**	**EU-15**	**17**
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	**REC**	**FR**	**EU-15**	**17**
KUNGLIGA TEKNISKA HOEGSKOLAN	HES	SE	EU-15	16
ENERGIATUDOMANYI KUTATOKOZPONT	REC	HU	EU-13	16
LIETUVOS ENERGETIKOS INSTITUTAS	REC	LT	EU-13	14
FRAMATOME	**PRC**	**FR**	**EU-15**	**14**
REGIA AUTONOMA TEHNOLOGII PENTRU ENERGIA NUCLEARA - RATEN	PUB	RO	EU-13	13
Czech Technical University in Prague	**HES**	**CZ**	**EU-13**	**13**
FRAMATOME GMBH	PRC	DE	EU-15	13

EUROPEAN SCIENCE VOCABULARY (EuroSciVoc)

EuroSciVoc is a multilingual taxonomy that represents all the main fields of science that were discovered from CORDIS content. It contains more than 1 000 categories (7 levels) in 6 languages (English, French, German, Italian, Polish and Spanish) and each category is enriched with relevant keywords extracted from the textual description of CORDIS projects

EuroSciVoc is managed by the Publications Office of the EU, and is currently used by the CORDIS website. It is specifically developed as a reference vocabulary for the Open Science community and is aligned with Linked Open Data standards.

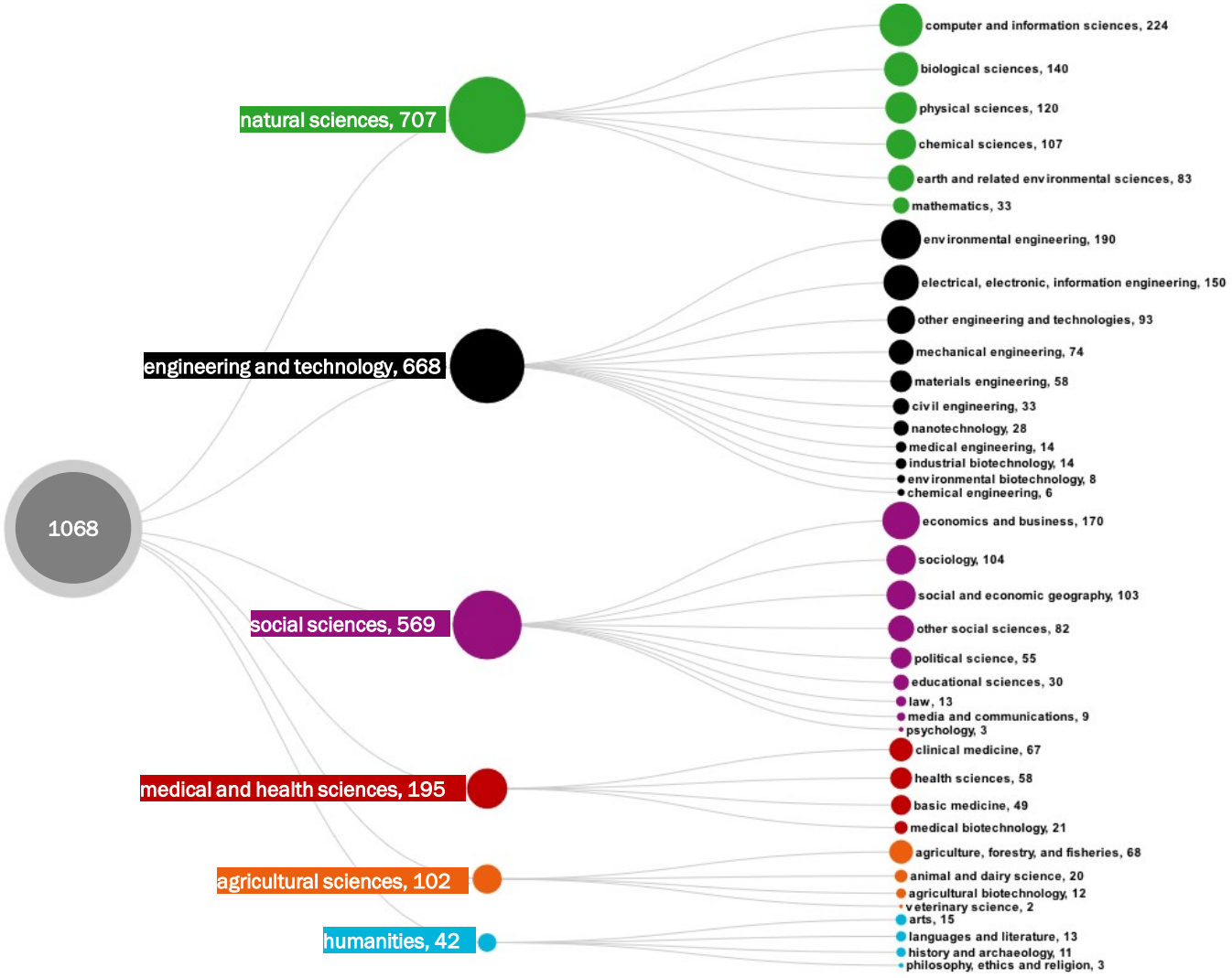
EuroSciVoc is available for download in .rdf and .ttl format and for browsing the content.



EuroSciVoc taxonomy represents the main areas of science and was created on the basis of the OECD Field of R&D (FoRD) hierarchy.

Office des publications de l'Union européenne

FR-CZ: FP7 AND H2020 projects: EuroSciVoc – level 1 and 2



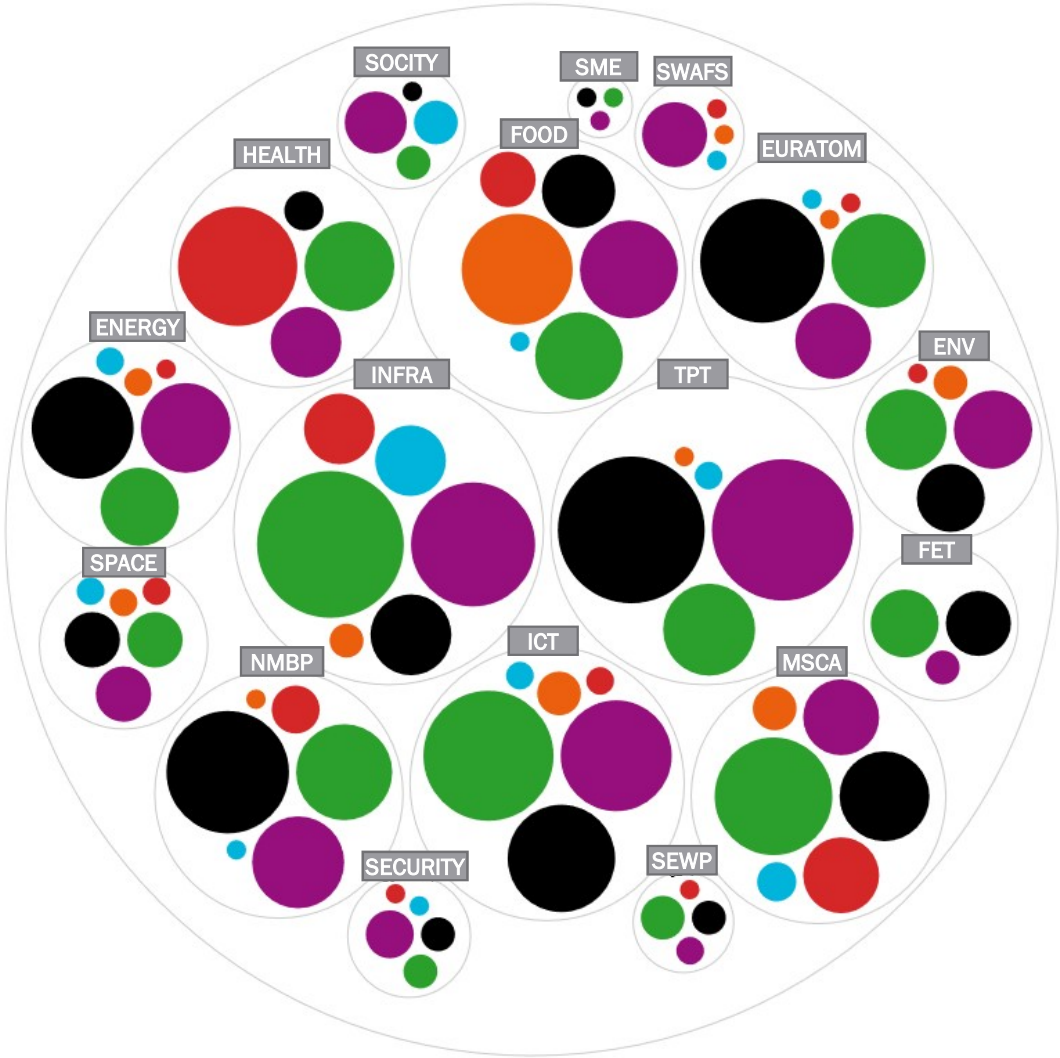
- 484 FP7 projects
- 584 H2020 projects

multidisciplinary character of projects

EUROSCIVOC_LVL_1 [csvDistinct]

- agricultural sciences
- engineering and technology
- humanities
- medical and health sciences
- natural sciences
- social sciences

FR- CZ PROJECTS: EuroSciVoc vs. H2020 structure



Celkem [sum]

12.5

50.0

584 H2020 CZ – FR projects with EuroSciVoc

EUROSCIVOC_LVL_1 [csvDistinct]

- agricultural sciences
- engineering and technology
- humanities
- medical and health sciences
- natural sciences
- social sciences

H2020	Projects with EuroSciVoc
TPT	80
INFRA	77
ICT	65
MSCA	47
EURATOM	46
FOOD	44
NMBP	44
HEALTH	42
ENERGY	40
ENV	23
SPACE	18
FET	15
SWAFS	13
SOCIETY	12
SECURITY	10
SEWP	7
SME	1
TOTAL	**584**

TECHNOLOGY CENTRE CAS

GENERAL PRESENTATION OF CZECH-FRENCH COOPERATION IN THE FRAME OF EU PROGRAMMES ANALYSIS OF PUBLICATION OUTPUTS

Czech-French Cooperation in Science: success stories and opportunities

Jiří Vaněček, vanecek@tc.cz

FR- CZ PUBLICATIONS - WEB OF SCIENCE CATEGORIES

FP7: CZ - FR collabor.		
Web of Science Categories	**Record Count**	**% of 1,145**
Physics Particles Fields	309	26,9
Astronomy Astrophysics	261	22,7
Physics Nuclear	135	11,7
Physics Multidisciplinary	72	6,3
Multidisciplinary Sciences	57	5,0
Biochemistry Molecular Biology	46	4,0
Environmental Sciences	46	4,0
Physics Applied	44	3,8
Materials Science Multidisciplinary	40	3,5
Genetics Heredity	35	3,0
Immunology	32	2,8
Instruments Instrumentation	32	2,8
Ecology	28	2,4
Physics Condensed Matter	28	2,4
Cell Biology	27	2,4
Computer Science Artificial Intelligence	27	2,4
Oncology	27	2,4
Engineering Electrical Electronic	25	2,2
Meteorology Atmospheric Sciences	22	1,9
Chemistry Physical	21	1,8
Plant Sciences	21	1,8
Physics Fluids Plasmas	18	1,6
Chemistry Multidisciplinary	17	1,5
Physics Atomic Molecular Chemical	17	1,5
Nuclear Science Technology	16	1,4

H2020: CZ - FR collabor.		
Web of Science Categories	**Record Count**	**% of 1,035**
Physics	486	46,8
Nuclear Science Technology	142	13,7
Astronomy Astrophysics	76	7,3
Instruments Instrumentation	66	6,4
Science Technology Other Topics	59	5,7
Environmental Sciences Ecology	47	4,5
Chemistry	42	4,0
Materials Science	40	3,9
Biochemistry Molecular Biology	30	2,9
Computer Science	30	2,9
Engineering	24	2,3
Optics	24	2,3
Mathematics	17	1,6
Hematology	16	1,5
Meteorology Atmospheric Sciences	14	1,3
Oncology	14	1,3
Plant Sciences	14	1,3
Biodiversity Conservation	10	1,0
Cell Biology	10	1,0
Genetics Heredity	10	1,0
Geochemistry Geophysics	10	1,0
Life Sciences Biomedicine Other Topics	9	0,9
Public Environmental Occupational Health	9	0,9
Evolutionary Biology	8	0,8
Immunology	8	0,8

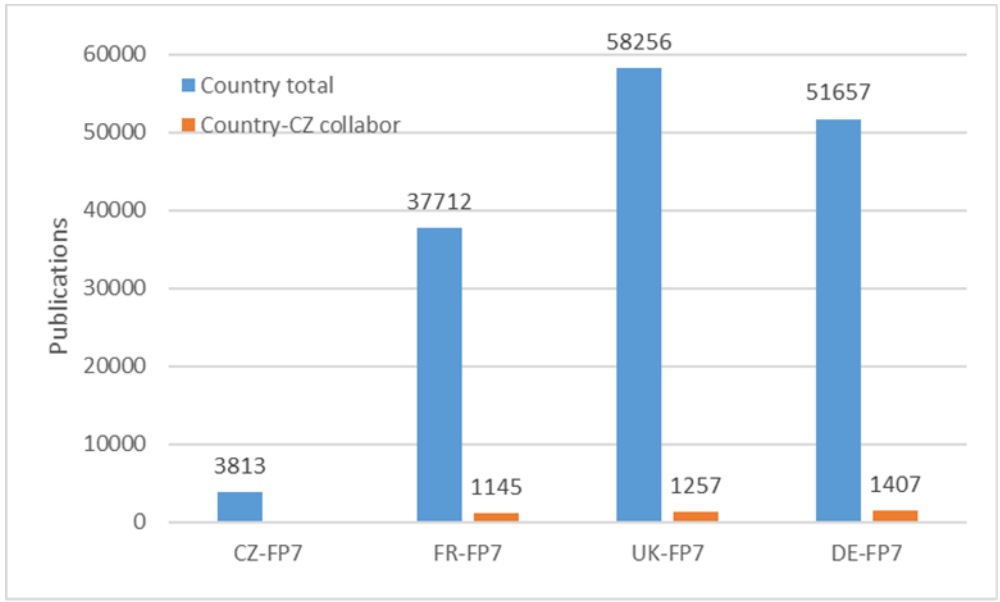
FR - CZ PUBLICATIONS – FPs/CERN AREAS

CZ - FR collabor		
FP7 area/CERN	publ.	% of 1 145
European Research Council	403	35,1
CERN	292	25,4
curie	203	17,7
euratom	15	1,3

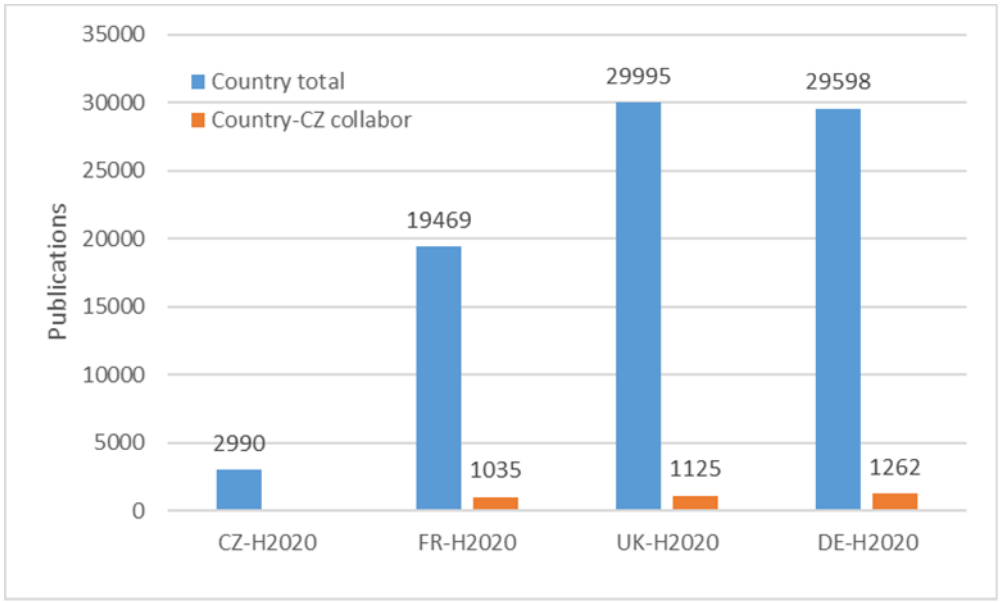
CZ - FR collabor		
H2020 area/CERN	publ.	% z 1 035
euratom	417	40,2
European Research Council	173	16,7
curie	108	10,4
CERN	31	3,0

FR - CZ PUBLICATIONS

FP7



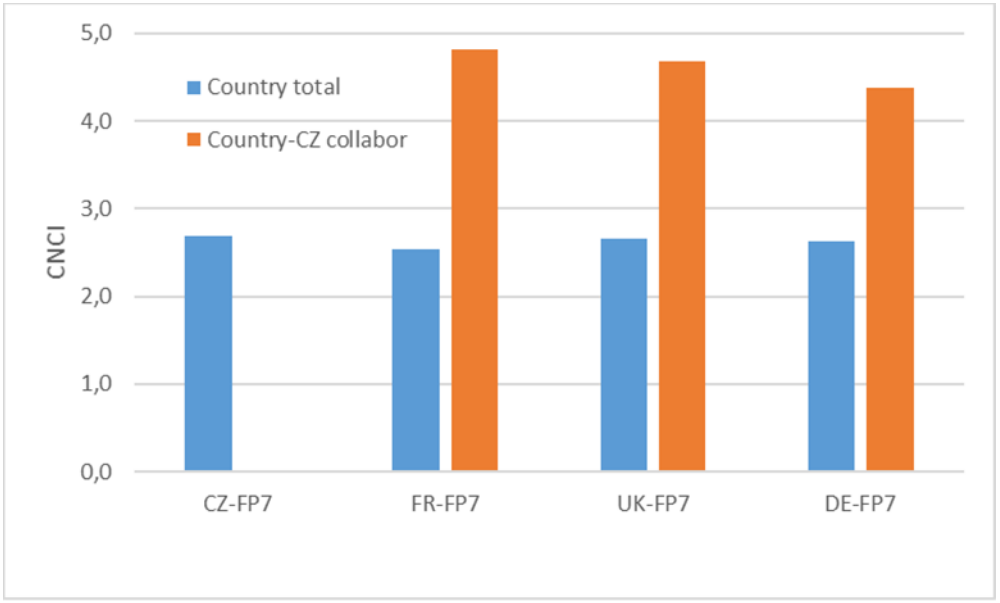
H2020



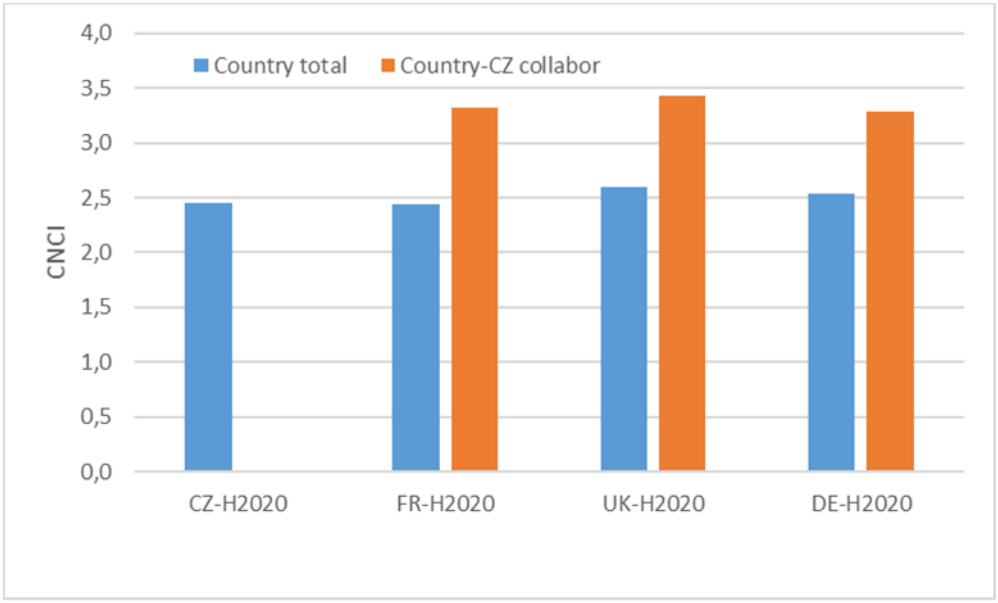
- CZ cooperates with FR more intensively in H2020 than in FP7
- Absolute number of publications with DE and UK is bigger than with FR in both FPs

FR-CZ PUBLICATIONS - CNCI

FP7



H2020



- International cooperation increases CNCI of publications arising from the solution of framework programmes projects

THANK YOU VERY MUCH FOR YOUR ATTENTION !☺

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