

### COST action CA20111 EuroProofNet

# Summary of Nov 23 - Oct 24

Frédéric Blanqui





# Core group composition (5 Oct 2024)

chair: Frédéric Blanqui (France) vice-chair: Sandra Alves (Portugal)

communication: Natasa Stojkovik (North Macedonia), Dmitriy

Traytel (Denmark)

grants: Simona Prokić (Serbia), Ambrus Kaposi (Hungary)

training: Luigia Petre (Finland), Marija Mihova (North Macedonia)

gender-balance: Anja Petković Komel (Slovenia)

WG1: Jesper Cockx (Netherlands), Catherine Dubois (France)

WG2: Mathias Fleury (Germany), Sophie Tourret (France)

WG3: Alicia Villanueva (Spain), Adrian Riesco (Spain)

WG4:Angeliki Koutsoukou-Argyraki (UK) Claudio Sacerdoti (Italy)

WG5: David Cerna (Czech Republic), Adrian de Lon (Germany)

WG6: Benedikt Ahrens (UK), Roussanka Loukanova (Bulgaria)

young 50% women 50% ITC 36%

## Countries represented in the MC

### **36** including **1** new ITC in 2024: **Bosnia and Herzegovina**

### evolution:

▶ submission: 24 (50% ITC)

Oct 2022: 34 (50% ITC)

► Oct 2023: 35 (51% ITC)

Oct 2024: 36 (53% ITC)

missing ITC: Cyprus, Latvia, Malta, Moldova, Montenegro

⇒ if you know colleagues in these countries, please contact them!

# Working group members (statistics on 3 Oct 24)

members	525		(+30%)
young	309	59%	(+38%)
women	114	22%	(+39%)
prefer not to say	18	3%	
ITC	109	21%	(+36%)
non-ITC	379	72%	(+26%)
non-COST*	28	5%	(+33%)
WG1	149	28%	(+17%)
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WG2	207	39%	(+31%)
WG3	246	47%	(+22%)
WG4	185	35%	(+18%)
WG5	125	24%	(+26%)
WG6	220	42%	(+21%)

<sup>\*</sup> USA, Argentina, Brazil, Taiwan, Canada, Japan, Mexico, Australia

## Member countries

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France (FR)	87	17%	+16	
United Kingdom (UK)	75	12%	+26	
Germany (DE)	45	9%	+8	
Italy (IT)	35	7%	+3	
Sweden (SE)	25	5%	+6	
Netherlands (NL)	19	4%	+2	
Portugal (PT)	19	4%	+4	
Spain (ES)	19	4%	+2	
Austria (AT)	17	3%	+6	
United States (US)	16	3%	+5	<b>@MC</b> members:
Denmark (DK)	15	3%	+1	Ask the colleagues
Serbia (RS)	14	3%	+1	and students of your
Belgium (BE)	13	3%	+0	country to register!
Romania (RO)	13	2%	+4	
Switzerland (CH)	12	2%	+3	
Hungary (HU)	9	2%	+3	
Czech Republic (CZ)	7	1%	+2	
Israel (IL)	7	1%	+2	
North Macedonia (MK)	7	1%		
Poland (PL)	7	1%	+2	
Turkey (TR)	7	1%	+2	

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# Communication (statistics on 5 Oct 24)

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web pages 136 pages (+25%)
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PDF reports/slides 378 (+55%)

videos 18

publications 106 (+165%)

photos 168 (+26%)

**Zulip chat** 295 followers (+17%)

Facebook 44 followers (+30%)

Twitter 68 posts 143 followers (+14%)

## Budget

▶ initial budget of 197,500 euros (like in 2023)

STSMs, 2 ITCGs, 2 schools, 10 meetings

▶ March 2024: budget increased to **224,600 euros** (+14%)

increased budget for STSMs, ITCGs, schools and meetings  $+\ 1$  meeting

# Expenses (on 9 Oct 2024)

date event

final

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	STSM		38357	44780	53763	+8983	
	ITCG		4000	8000	11418	+3418	
Jan	WG1	Gruissan	12270	9424	9328	-96	
Mar	WG5	Vienna	12316	9818	9202	-616	
Mar	WG3	Dresden	12372	11999	9977	-2022	
Apr	WG6	Leuven	16020	14454	12237	-2217	
Apr	WG12	Val d'Ajol	12270	12270	9206	-3064	
May	WG2 Geo	Nice	6700	6700	6832	+132	
Jun	WG236	Lausanne	12274	15618	7866	-7752	
Jul	Georgia school	Kutaisi	0	0	4727	+4627	
Jun	SAT school	Nancy	9030	15971	13222	-2749	
Jul	WG2 TPTP	Nancy	6130	6130	4261	-1869	
Jun	WEPN	Bonn	7090	7090	4080	-3010	
Aug	ISR	Obergurgl	0	0	9508	+9508	
Sep	WG4	Tbilisi	11940	11940	12319	+379	
Sep	PC school	Fischbachau	10970	15810	12282	-3528	
Sep	WG124	Fontaine bleau	0	5300	4719	-581	
		TOTAL	171739	195304	194849	-455	
		+FSAC 15%	197500		224076	-523	

# STSMs and ITCGs (33% of the budget)

6 calls: November 12, January 7, March 17, May 1st, July 31st, August 28

### STSMs:

27% of the budget 45 submissions, 31 accepted (69%) average cost: 1734 euros

### ITCGs:

6% of the budget 12 submissions, 8 accepted (67%), 1 cancelled average cost: 1631 euros

# Reimbursements (on 9 Oct 2024)

date	event	place	nb	unsub	sub	chk	paid
	STSM		31	0	0	0	100%
	ITCG		8	0	0	0	100%
Jan	WG1	Gruissan	13	0	0	0	100%
Mar	WG5	Vienna	14	0	0	0	100%
Mar	WG3	Dresden	13	0	0	0	100%
Apr	WG6	Leuven	20	0	0	0	100%
Apr	WG12	Val d'Ajol	12	0	0	0	100%
May	WG2 Geo	Nice	10	0	0	1	90%
Jun	WG236	Lausanne	10	0	0	1	90%
Jul	Georgia school	Kutaisi	6	0	0	0	100%
Jun	SAT school	Nancy	15	0	0	0	100%
Jul	WG2 TPTP	Nancy	7	0	0	0	100%
Jun	WEPN	Bonn	7	0	0	0	100%
Aug	ISR	Obergurgl	9	0	0	4	0%
Sep	WG4	Tbilisi	16	0	0	16	0%
Sep	PC school	Fischbachau	12	0	2	10	0%
Sep	WG124	Fontaine bleau	14	0	14	0	0%
		TOTAL	220	0	16	32	78%

# Simplification of reimbursement rules by Grant Holder

receipts for meals are not necessary anymore (since July 2024)

 STSMs will now be treated as grants and not missions (amount fixed in advance, no receipt, from November 2024)

- 1. Support young researchers from inclusive-target countries: 8 ITCGs, 11 STSMs (35%), 1 school in Georgia
- 2. Advertise the work of women in EuroProofNet and inform EuroProofNet members on gender biaises: WEPN meeting in Bonn
- 3. Report on the achievements of the action wrt to its objectives and planned deliverables: this meeting
- **4.** Train young researchers on advanced topics in type theory, linguistics, proof theory and formal mathematics:
- 2 schools (PC school, school in Georgia)
- **5.** Train young researchers on state-of-the-art techniques in automated theorem proving: 2 schools (SAT school, ISR)

- **6.** Develop tools to handle proofs generated by automated theorem provers and SMT solvers:
  - Extension of GDV to output LP proofs
  - Extension of Carcara to output LP proofs (PhD Alessio Coltellacci)
  - ► Extension of LEO-III to output LP proofs (MSc Melanie Taprogge)
- **7.** Bring together industry designers and researchers on formal methods to share ideas and experiences on how to improve the tools to reduce the barrier to adoption of formal methods: WG3 meeting in Dresden with industry users
- **8.** Express new proof system features in the Dedukti logical framework: proof irrelevance, lean2dk (PhD Rishikesh Vaishnav)
- **9.** Translate proof libraries from some systems to others and make them easily available: hol2dk, paper LPAR'24, invited talk ITP'24

**10.** Bring together interactive proof system developers and users to share their experience and tools for developing, searching and maintaining large libraries of proofs:

WG4 meeting with ITP, Coq and Isabelle workshops

- **11.** Promote the use of proof systems in mathematics and program verification: Meeting in Lausanne
- **12.** Share knowledge on the use of large language models in formal mathematics
- **13.** Align proof systems and machine learning techniques: WG5 meeting in Vienna

- **14.** Define a common framework for defining and reasoning on type theories: WG6 meeting in Leuven
- **15.** Develop a framework to represent and check sets of axioms for geometry, that can be easily integrated in educational applications: WG2 meeting in Nice