COST Action CA20116

OPERA

European Network for Innovative and Advanced Epitaxy

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

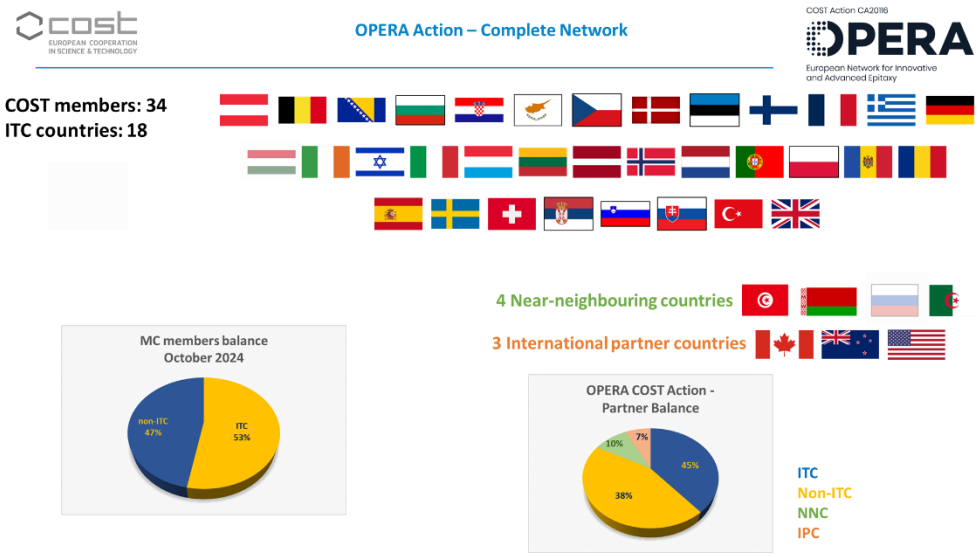
Horizon 2020 European Union Funding for Research & Innovation

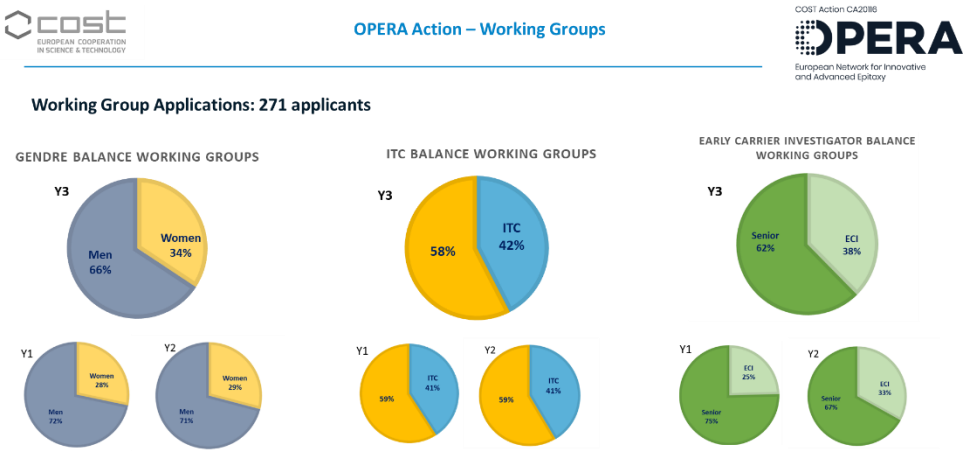
Year 3: Sept 2023 – Sept 2024 / COST Policies implementation

1. Relevance, uniqueness and inclusiveness of OPERA COST Action

❖ OPERA transversal organization gathering 34 (+1) COST countries including 18 (+1) Inclusiveness Target Countries (ITCs) representing 53% of the COST Partner countries, as well as 3 (+1) COST Near Neighbor Countries and 3 COST International Partner Countries

❖ Participation of 34% of women, 42% of ITC members and 38% of young researchers





- **WorkGroup 1: Fundamental research – New Materials:** *207*
- **WorkGroup 2: Applications-oriented material developments:** *182*
- **WorkGroup 3: Industry-oriented materials development and technological transfers:** *51*

2. Relevance, uniqueness and inclusiveness of STSM

- STSM-OPERA budget = 47 813 €
- Participation of 42% of women, 4% of ITC members and 96% of young researchers

Third Grant Period: STSM Calls Summary

7th Call

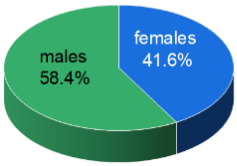
- Application period: November 6 to December 1
- Budget: 16.667 €
- Executed budget: 9.708 €
- Candidates: 4
- STSM grantees: 4
- Female grantees: 3 (75%)
- ITC grantees: 0 (0%)
- Young researchers: 4 (100%)

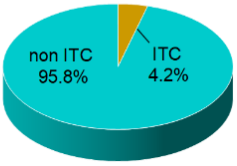
8th Call

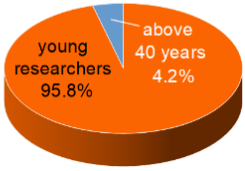
- Application period: December 23 to February 15
- Budget: 23.625 €
- Executed budget: 23.625 €
- Candidates: 13
- STSM grantees: 13
- Female grantees: 4 (31%)
- ITC grantees: 1 (7%)
- Young researchers: 12 (92%)

9th Call

- Application period: March 16 to May 15
- Budget: 16.667 €
- Executed budget: 14.480 €
- Candidates: 8
- STSM grantees: 7
- Female grantees: 3 (43%)
- ITC grantees: 0 (0%)
- Young researchers: 7 (100%)

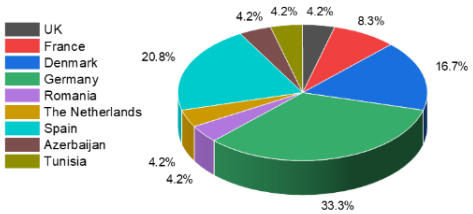




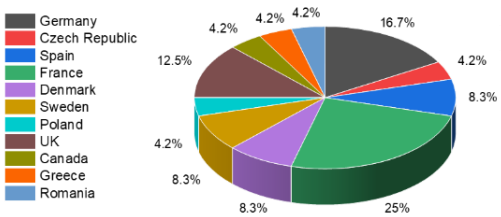


Third Grant Period: Grants Country Distribution

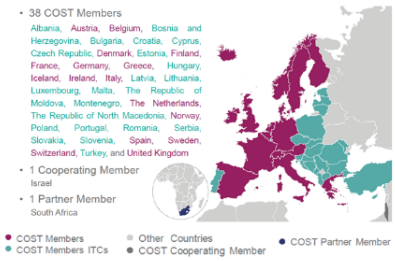
Home institutions countries



Host institutions countries



Home institutions: 9 countries
(mostly Germany, Spain and Denmark)
ITCs: 1 (4.2%)
Mean age STSM grantee: 30 years
Mean STSM duration: 24 days

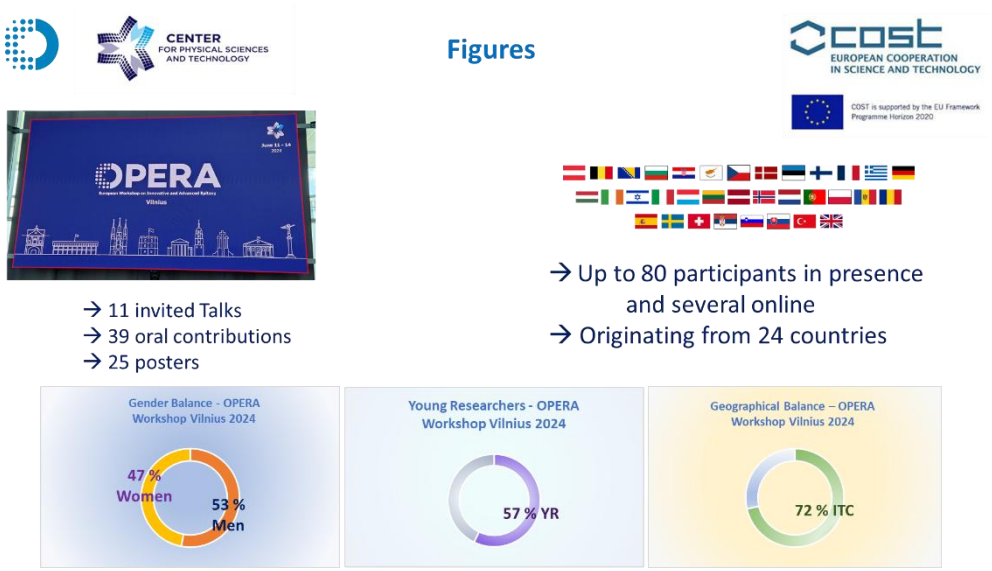


Host institutions: 11 countries
(mostly France, Germany and UK)
ITCs: 4 (16.6%)

3. Relevance, uniqueness and inclusiveness of Workshops

European Workshop on Innovative and Advanced Epitaxy

- Participation of 53% of women, 57% of ITC members and 72% of young researchers
- Funded participants: Women = 51%; ITC = 69%; YRI = 57%



4. Relevance, uniqueness and inclusiveness of Training School

- Participation of 35% of women, 49% of ITC members and 73% of young researchers
- Funded participants: Women = 40%; ITC = 60%; YRI = 100%

Matthew Zervos
MC member

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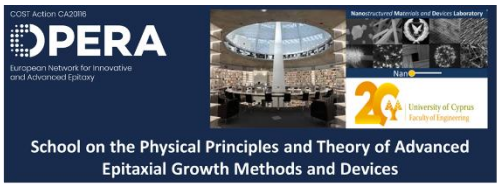
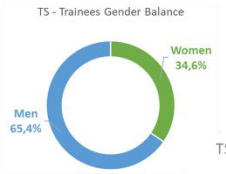
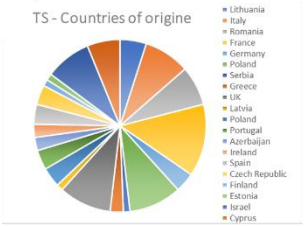
3rd Training School on the Physical Principles and Theory of Advanced Epitaxial Growth Methods and Devices

University *of* Cyprus, School *of* Engineering, Cyprus
25th – 27th September 2024

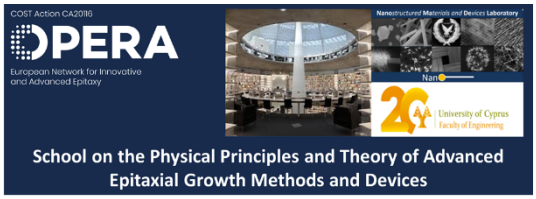






Wednesday 25th September	Thursday 26th September	Friday 27th September
Welcome 8:45-9:00	Introduction 08:45-09:00	Introduction 08:45-09:00
"Introduction to Crystal Growth" **A. Pimpinelli** Université Clermont Auvergne, France 09.00-09.50	*"Fundamentals of Nanowire Growth"* **F. Glas** Centre de Nanosciences et de Nanotechnologies, C2N, CNRS 09.00-09.50	*"Epitaxy and Growth of Quantum Dots"* **S. Christodoulou** Dept of Chemistry, Ucy 09.00-09.50
"Fundamentals of Epitaxy" **A. Pimpinelli** Université Clermont Auvergne, France 10.00-10.50	*"Nanowire Growth Mechanisms"* **F. Glas** Centre de Nanosciences et de Nanotechnologies, C2N, CNRS 10.00-10.50	*"Core-Shell Quantum Dots"* **S. Christodoulou** Dept. of Chemistry, Ucy 10.00-10.50
"Fundamentals of Epitaxy" **A. Pimpinelli** Université Clermont Auvergne, France 11.00-11.50	*"Axial Nanowire Heterostructures"* **E. Dimakis** Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany. 11.00-11.50	*"Quantum Dot Sensitized Solar Cells"* **M. Zervos** School of Engineering, Ucy 11.00-11.50
"Epitaxial Growth of 2D Materials" **W. Pacuski** Department of Physics, University of Warsaw 12.00-12.50	*"Lattice-Mismatched Core-Shell Nanowire Heterostructures"* **E. Dimakis** Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany 12.00-12.50	Award of Certificates and Concluding Remarks 12.00-12.30
Lunch Break 13.00-14.00	Lunch Break 13.00-14.00	Lunch Break 13.00-14.00
"Epitaxial Growth of 2D Materials" **W. Pacuski** Department of Physics, University of Warsaw 14.00-14.50	*"Properties of Nanowires"* **M. Zervos** School of Engineering, Ucy 14.00-14.50	Group Photo 14.00-14.15
"Challenges and Solutions in the Fabrication and Releasing of Free-Standing Correlated Oxide Membranes" **Nini Pryds** Technical University of Denmark 15.00-15.50	*"Nanowire Arrays and Fabrication of Devices"* **M. Zervos** School of Engineering, Ucy 15.00-15.50	
"ALD and AACVD of Oxides " **D. Munoz** CNRS, Grenoble 16.00-16.50	*"Physics of Nanowire Devices"* **M. Zervos** School of Engineering, Ucy 16.00-16.50	

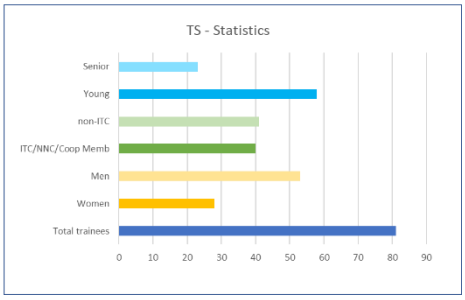
17 lectures

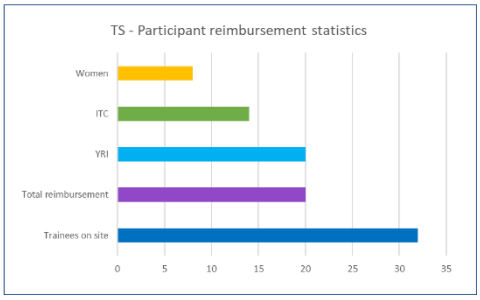


Total budget: 29 787 €

20 funded trainees

7 funded trainers





5. Popularization

❖ OPERA dedicated webpage uploaded with Video and News articles, https://cost-opera.eu/we-speak-about-opera/

6. Budget Y3

AGA-CA20116-3-FR Report Date: 2024-11-18 11:25:20 Period of reporting from 01/11/2023 to 31/10/2024

FINAL FINANCIAL REPORT

Networking Expenditure Totals	Grant budget (a)	Expenditure			Delta (g=d-a)
		Actuals (b)	Accruals (c)	Total (d=b+c)	
	EUR	EUR	EUR	EUR	EUR
Meetings	89 540.00	83 002.41	0.00	83 002.41	-6 537.59
Training Schools	35 400.00	30 374.13	0.00	30 374.13	-5 025.87
Short-Term Scientific Mission	50 400.00	44 534.00	0.00	44 534.00	-5 866.00
Virtual Mobility	1 500.00	0.00	0.00	0.00	-1 500.00
Dissemination Conference	2 500.00	0.00	0.00	0.00	-2 500.00
ITC Conference	3 500.00	2 760.00	0.00	2 760.00	-740.00
Dissemination and Communication Products	16 500.00	3 845.00	0.00	3 845.00	-12 655.00
OERSA	224.00	0.00	0.00	0.00	-224.00
Virtual Networking Support	0.00	0.00	0.00	0.00	0.00
Total Networking expenditure	**199 564.00**	**164 515.54**	**0.00**	**164 515.54**	**-35 048.46**

Eligible Networking Expenditure Totals	Grant budget (a)	Expenditure			Delta (g=d-a)
		Actuals (b)	Accruals (c)	Total (d=b+c)	
	EUR	EUR	EUR	EUR	EUR
Eligible Networking expenditure	199 564.00	164 515.54	0.00	164 515.54	-35 048.46
FSAC (max 15%)	**29 934.60**	**24 677.33**	**0.00**	**24 677.33**	**-5 257.27**
Total eligible expenditure	**229 498.60**	**189 192.87**	**0.00**	**189 192.87**	**-40 305.73**