



UNITED NATIONS ENVIRONMENT PROGRAMME
INTERNATIONAL INSTITUTE OF REFRIGERATION
EUROPEAN ASSOCIATION OF RAC CONTRACTORS
ITALIAN ASSOCIATION OF RAC TECHNICIANS
RENEWABLE ENERGY INSTITUTE
CENTRO STUDI GALILEO

Hybrid event: on-site and on-line
Polytechnic University of Milan

10-11 June 2021

19th European Conference

**The Latest Technologies in
Refrigeration and Air Conditioning**
The Cold Chain for Vaccines, Environment,
Energy, Training, Certification, Legislation,
Standards, Safety



**Under the auspices of the Italian
Ministry of Ecological Transition**

*In Association with Global Leading
Researchers and Experts from:*

United Nations Environment Programme (UNEP)
**United Nations Industrial Development
Organization (UNIDO)**
European Commission DG Clima
International Institute of Refrigeration (IIR)
Association Française du Froid (AFF)
AREA - ASERCOM - ASHRAE - AHRI - EPEE
Politecnico of Milan, Turin
Universities of Ancona, Genoa, Padua
and all the AC&R European Associations

PRESIDENTS & KEYNOTE SPEAKERS

JIM CURLIN, *Acting Head/Network, Policy Manager* – UNEP
DIDIER COULOMB, *Director General* – IIR
ALBERTO CAVALLINI, *Honorary President* – IIR
Invited (tba) – European Commission, Climate Action
FRANZISKA MENTEN – UNIDO
DIVINE NJIE, *Deputy Director, Food Systems and Food Safety* – FAO
STEPHEN YUREK, *President & CEO* – AHRI
WALID CHAKROUN, *Chair, ASHRAE-UNEP liaison committee* – ASHRAE
NOBORU KAGAWA, *Board Member* – JSRAE
ANDREA VOIGT, *Director General* – EPEE
MARCO BUONI, *President* – AREA
WOLFGANG ZAREMSKI, *President* – ASERCOM
FRANCESCO SCUDERI, *Deputy Secretary General* – Eurovent
MIKE CREAMER, *President* – IOR
GERALD CAVALIER, *President* – AFF
MADI SAKANDÉ, *President* – U-3ARC
FEDERICO MUSAZZI, *Secretary General* – Assoclima
FRANCESCO MASTRAPASQUA, *President* – Assocold
ENNIO MACCHI, *Professor Emeritus* – Politecnico Milano
GIOVANNI LOZZA, *Director, Energy Dept* – Politecnico Milano
FABIO POLONARA, *Co-chair TEAP RTOC & Politecnico Marche*
MARCO MASOERO, *Director Energy Dept.* – Politecnico Torino
LUCA TAGLIAFICO, *Professor* – Università Genova
SILVIA MINETTO, *Researcher* – CNR-ITC Padova
DAVIDE DEL COL, *Professor* – Padova University
CLAUDIO ZILIO, *Professor* – Padova University
CARLO MALVICINO, *Head of CO₂ Emissions Reduction Strategies* - Stellantis

To participate, please get
in touch with us:

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19th European Conference

THE LATEST TECHNOLOGIES IN REFRIGERATION AND AIR CONDITIONING

ENVIRONMENT, ENERGY, TRAINING, CERTIFICATION, LEGISLATION, STANDARDS, SAFETY

10-11 June 2021



10 June 2021

10 June 2021 - morning

Introduction

9.15 am – 10 am CEST	INTRODUCTION TO THE TOPICS OF THE CONFERENCE; EUROPEAN AND GLOBAL RAC SITUATION. THE COLD CHAIN FOR VACCINES. TECHNOLOGIES; EQUIPMENT AND COMPONENTS. F-GAS AND REFRIGERANTS. ENERGY EFFICIENCY AND RENEWABLES. POLICY AND REGULATIONS.
9.15	M. Buoni Air Conditioning & Refrigeration Association – AREA
9.30	J. Curlin United Nations Environment Programme – UNEP
9.45	D. Coulomb International Institute of Refrigeration – IIR

Coffee break

10 June 2021 - morning

First Session | Technologies; equipment and components

10.30 am – 1 pm CEST	NEW COMPONENTS & EQUIPMENT WITH ALTERNATIVE REFRIGERANTS, CONSIDERING THEIR ENERGY EFFICIENCY AND ENVIRONMENTAL ISSUES, RESULTS AND UPDATES.		
	CHAIRPERSONS: E. Macchi, G. Lozza Polytechnic of Milan S. Minetto CNR Padova D. Del Col Padova University M. Creamer IOR		
	Energy issues in relation to the air conditioning and refrigeration components and plants optimization. Secondary refrigerant plants, CO2, HC systems. Compressors and systems. Energy optimization. New components for domestic, commercial and industrial refrigeration and air conditioning. Process and design.		
10.30	S. Minetto CNR Padova	11.45	M. Creamer Business Edge
10.45	D. Del Col Padova University	12.00	M. Bassi Embraco
11.00	M. Bonfanti Officine Mario Dorin	12.15	M. Ascani Angelantoni Industrie
11.15	M. Caldognetto Bitzer	12.30	S. Capanelli Carel Industries
11.30	B. Bella Emerson		

Lunch break

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10 June 2021 - afternoon

Second Session | F-Gas and Refrigerants

2 pm – 5 pm CEST

NEW REFRIGERANTS AND FUTURE PERSPECTIVES, IN REFERENCE TO THE F-GAS REGULATION AND ENERGY SAVING.

CHAIRPERSONS: **A. Cavallini** Padova University - IIR | **D. Coulomb** IIR | **W. Chakroun** ASHRAE | **C. Zilio** Padova University | **N. Kagawa** JSRAE

New low GWP refrigerants. Developments, perspectives and forecasts on new alternative refrigerants. New synthetic and natural refrigerants, pure and mixtures HFC, R32, HFO-1234yf/ze/za, HFO mixtures, CO2, ammonia, hydrocarbons; secondary refrigerants; lubricants for synthetic refrigerants.

14.00	A. Cavallini, D. Coulomb IIR	15.15	P. Mattavelli Errecom
14.15	N. Kagawa JSRAE	15.30	S. Filippini LU-VE Group
14.30	W. Chakroun ASHRAE	15.45	S. Saab Chemours
14.45	A. Hafner NTNU	16.00	S. Fedeli General Gas
15.00	C. Zilio Padova University	16.15	M. Lorusso Nippon Gases



11 June 2021

11 June 2021 - morning

Third Session | Green Cooling and Energy Efficiency

10 am – 12.15 pm CEST

GREEN COOLING AND ENERGY EFFICIENCY.

CHAIRPERSONS: **M. Masoero** ATF & Polytechnic of Turin | **F. Scuderi** Eurovent | **F. Musazzi** Assoclimate | **L. Tagliafico** Genova University | **C. Malvicino** Stellantis

European Green Deal, ecodesign. Energy efficiency in plants. Heat pumps, cooling with absorption and adsorption plants. Renewable energy and chemistry in air conditioning and refrigeration. Evaporative cooling, district cooling and magnetic cooling. Mobile air conditioning.

10.00	M. Masoero ATF & Poli Torino	11.15	K. Berglöf KlimaCheck
10.15	F. Scuderi Eurovent	11.30	K. Nourrice Frascold
10.30	F. Musazzi Assoclimate	11.45	T. Funder-Kristensen Danfoss
10.45	L. Tagliafico Genova University	12.00	D. Tsimpoukis Metro
11.00	C. Malvicino Stellantis		

Lunch break

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Fourth Session | Regulations & Certifications Globally

1 pm – 3.15 pm CEST	POLICY: GLOBAL F-GAS PHASE DOWN AND EU REGULATION REVIEW, TRAINING AND CERTIFICATION.		
	CHAIRPERSONS: J. Curlin UNEP (tba) EU Commission S. Yurek AHRI A. Voigt EPEE W. Zaremski ASERCOM F. Polonara TEAP – RTOC F. Mastrapasqua Assocold		
	The Kigali Amendment: HFC Phase-down, flammable refrigerants' standards, illegal refrigerants, inspections, logbook, maintenance. Containment, recovery and recycling. Training and certification in Europe and Italy. Products' and components' certification.		
13.00	(tba) EU Commission	14.15	F. Polonara TEAP - RTOC
13.15	J. Curlin UNEP	14.30	F. Mastrapasqua Assocold
13.30	A. Voigt EPEE	14.45	F. Walravens EIA
13.45	S. Yurek AHRI	15.00	M. Buoni AREA
14.00	W. Zaremski ASERCOM		

Coffee break

11 June 2021 - afternoon

Fifth Session | The Cold Chain

3.30 pm – 5 pm CEST	THE COLD CHAIN, FOOD AND VACCINES DISTRIBUTION AND CONSERVATION, COLD STORAGE AND TRANSPORT, CONTROLS AND DATA LOGGERS.		
	CHAIRPERSONS: M. Masoero ATF & Polytechnic of Turin A. Cavallini IIR F. Menten UNIDO D. Njie FAO G. Cavalier AFF M. Sakandé U-3ARC		
	New technology in the cold chain: vaccines and food preservation; vehicles, trains, ships, cold storages; applications in commercial and domestic refrigeration, supermarkets, hospitals, vaccination centres and industry. Energy saving optimization. Solar refrigeration. Insulation; environmental control in food processes, safety control in the cold chain ATP.		
15.30	D. Njie FAO	16.15	M. Sakandé U-3ARC
15.45	F. Menten UNIDO	16.30	V. Tsyplakov Mirai Intex
16.00	G. Cavalier AFF	16.45	D. Coulomb IIR

Conclusions to the Conference