







Capacity Building on Green Technologies for Patent Examiners

14 to 17 March 2022



Funded by
the European Union

Main information

Title	Date	Time	Hosts	Type	Language
 <p>Capacity Building on Green Technologies for Patent Examiners</p>	 <p>14 to 17 March 2022</p>	 <ul style="list-style-type: none">• Brazil (Brasília), Argentina, Chile, Paraguay, Uruguay: 9h30-13h30• Barbados, Cuba, Dominican Republic, Grenada, Trinidad Tobago, Venezuela: 8h30-12h30• Colombia, Ecuador, Jamaica, Panama, Peru: 07h30-11h30• Belize, Honduras, Mexico: 06h30-10h30	 <ul style="list-style-type: none">• National Institute of Industrial Property (INPI) in Brazil• United Nations Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL)• European Patent Office (EPO)• Supported by Euroclima+	 <ul style="list-style-type: none">• Online capacity building composed by live lectures followed by Q&A sessions.• Closed activity tailored exclusively to representatives of Patent Offices from Latin American and Caribbean countries.	 <ul style="list-style-type: none">• The working languages are English, Portuguese and Spanish.• There will be simultaneous interpretation over the entire duration of the capacity building.



Motivation and background

Given the dynamism and expanding scope of green innovations, capacity building targeted at patent examiners has become a continuous effort of Patent Offices, in order to keep their experts updated in the face of constant technological innovations and able to support countries in their patents and intellectual property granting processes, including green patents, areas whose technological frontiers are constantly and rapidly expanding.

The capacity building takes place within the scope of the project “Building a national and regional strategy for the development and adoption of sustainable technologies”, led by the National Institute of Industrial Property (INPI) in Brazil and supported by Euroclima+ through the United Nations Economic Commission for America Latin America and the Caribbean (ECLAC/CEPAL).

The project seeks to fill knowledge gaps regarding the use of patents as a mechanism for the diffusion of green technologies, especially those that address climate impact. In particular, the project aims, on the one hand, to promote and disseminate the INPI’s Green Patent Program, in view of its pioneering character, its results (for example, in terms of reducing the time to decide on patents for these technologies) and the learning obtained along its implementation trajectory. On the other hand, the project also seeks to deepen the relations between the Latin American and Caribbean Countries Patent Offices and to strengthen exchanges between peers in the region and beyond in the area of green technological development.

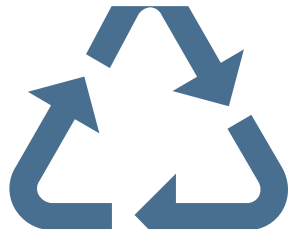
Goal

The goal of this capacity building is to develop capacities in the area of green patents and technologies aimed at patent examiners from Brazil and Latin American and Caribbean countries, in order to keep them updated in the face of constant technological innovations and able to support countries in their processes for granting intellectual property titles, including green patents, an area whose technological frontier is in constant and rapid expansion.

Throughout the course, the participants will gain a deeper understanding of innovation and technological developments in the following fields:



Energy and biofuels



Recovery and reuse of waste



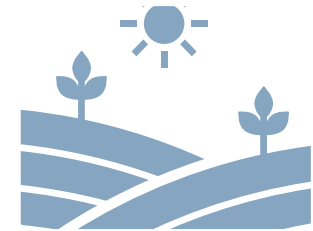
Wastewater treatment and reuse



Green chemistry



Air pollution control technologies



Alternative pesticides



Learning objectives

- Improve understanding of current state of the art, trends and emerging technologies and features;
- Expand knowledge of technological shortcomings and challenges;
- Broaden comprehension of current focus of research and development projects;
- Learn about technological advances in that could be disruptive;
- Discuss green innovation and technologies with world-leading experts;
- Connect and interexchange with patent examiners and experts from Latin America and the Caribbean.

Target audience

The capacity building is tailored to officials and representatives of patent offices from Latin American and Caribbean countries.

The capacity building is tailored to officials at middle- or high-management level of the above-mentioned institutions.



Format, duration and language

- Online capacity building.
- Closed activity exclusively tailored to representatives of Patent Offices from Latin American and Caribbean countries.
- Live lectures and Q&A sessions led by world-leading experts in green technologies.
- Exclusive access to supporting materials (presentations in English).
- The expected duration is between 3 to 4 hours per day over the course of four consecutive days.
- The working languages are English, Spanish and Portuguese. There will be simultaneous interpretation.
- No fees or charges apply.
- Certificates of participation will be issued by INPI Brazil.

Lecturers

Dr. Dimitrios Mertzis

Dr. Dimitrios Mertzis has a PhD in biomass conversion technologies and a Mechanical Engineering Diploma from the Aristotle University of Thessaloniki (AUTH), Greece. He is a researcher at the Laboratory of Applied Thermodynamics and the co-founder of the AUTH spin-out company BIO2CHP. Dr. Mertzis is BIO2CHP's technical manager responsible for product development and R&D activities. His focus is on biomass conversion technologies based on thermochemical processes for the production of advanced biofuels and bioenergy. From 2008 till 2017, he performed research on the fields of biomass energy, biofuels, exhaust after-treatment, internal combustion engines, solid fuels characterization and computational fluid dynamics. He is an active expert advisor for engineering companies in the field of biofuels, bioenergy and biogas technologies as well as other renewable energy (solar cooling, cogeneration) projects. Dr. Mertzis was also an adjunct lecturer in the Mechanical Engineering Department of AUTH from 2017 to 2019. As of 2021, Dr. Mertzis counts 8 publications with more than 100 citations in international scientific journals in the fields of Energy and Fuels. He is a reviewer in 3 scientific journals, an expert evaluator for the European Commission and a certified energy auditor.





Dr.-Ing. Franziska Müller-Langer

Dr. Franziska Müller-Langer is head of the Biorefineries department at DBFZ (German Biomass Research Centre) since 2008; before she worked as a team leader and project manager at the Institute for Energy and Environment. Her background is in mechanical engineering with focus on energy technologies; she got her diploma at the Technical University Bergakademie Freiberg. She received her doctorate grade at the Technical University Hamburg. Among others she got working experiences from e.g. Siemens Power Generation, Erlangen, and Laboratory of Applied Thermodynamics at the University of Thessaloniki (Greece). Within the Biorefineries department about 40 scientists and technicians work for the focus research topic biobased products and fuels. Franziska Müller-Langer has comprehensive experiences from national and international with particular emphasis on current and future renewable (bio-)fuels and technology assessments. She is author of various publications and is a lecturer in this area. Moreover she contributes with her expertise to different bodies like as national team leader for the IEA TCP Bioenergy Task 39 »Commercializing Conventional and Advanced Transport Biofuels from Biomass and Other Renewable Feedstocks«; European Technology and Innovation Platform (ETIP), WG4 »Policy and Sustainability«; DECHEMA ProcessNet – Sustainable Production, Energy and Resources (SuPER), Groups Process Engineering and Alternative Fuels, National Platform Future of Mobility (NPM) WG2 Focus Group 3 »Alternative Fuels for Internal Combustion Engines« as well as scientific board of The Research Association for Diesel Emission Control Technologies (FAD e. V.), VDI Guideline committee 4635 Power-to-X AG „CO₂-Supply“.

Dr. Gunnar Schröder

Dr. Gunnar Schröder, from Brussels, Belgium, holds a degree in Chemistry which he acquired at the Technical University of Berlin, Germany. He completed a PhD at the Max-Planck-Institute for Molecular Genetics and the Free University of Berlin in the fields of biochemistry and molecular biology. After some years as a post-doctoral researcher at the University of Basel (Switzerland) in the field of molecular biology of infectious diseases he joined the European Patent Office (EPO) in 2007 as patent examiner. Here he has worked in the fields of fermentation and bioreactors (IPC fields C12P and C12M). Besides his core work in patent examination, Dr. Gunnar has had tasks as a team manager, as a trainer for the European Patent Academy, as a Knowledge Transfer agent, and as a search expert.





Dr. Jens Peter Hansen

Dr. Jens Peter Hansen is Owner of ECA Engineering Aps. Jens has more than 20 years of experience with emission reduction technologies. Jens is nowadays working as an independent expert for different large companies which either apply or develop emission reduction technologies. During the last years, focus has shifted to also cover greenhouse gases and not only the traditional emissions like NO_x, SO_x and particles. Process simulations and advanced data analysis are the primary tools used to explore new process solutions and to validate existing process design.

Jens Peter carried out an industrial PhD about sulphur emissions from cement production in a co-operation between FLSmidth and the Technical University of Denmark. Jens has published several papers and patents related to the reduction of emission from cement production processes during his employment at FLSmidth.

In 2007, Jens Peter Initiated the first R&D activities of "SO_x Scrubbers" for cleaning exhaust gases from marine engines running on high sulphur heavy fuel oil. Tests were carried out in co-operation with Alfa Laval, MAN Energy Solutions and the Danish Environmental Protection Agency. Jens Peter headed the testing and further product development which led to the installation of the world's largest scrubber system onboard a vessel. The scrubber system was successfully up running in 2010 and has matured into a valuable commercial product installed on thousands of ships today. Jens has published several papers and patents related to marine scrubbers.

Jens Peter founded ECA Engineering Aps in 2017 to help ship owners to comply with the global sulphur cap which entered into force in 2020. Jens has helped major ship owners like Torm, Ultra Gas, DFDS, and Maersk to select among the different technologies for reducing their exhaust gas emissions.

Today, Jens Peter is shifting more and more focus to Carbon Capture and Storage (CCS) technologies. A major client in this field is DESMI who are developing cargo pumps for the transportation of liquid carbon dioxide. Research on different CCS technologies are carried out at Aalborg University and at the Technical University of the Denmark where Jens Peter is associated as an external examiner.

Ms Katerina Theodoridou

Ms Katerina Theodoridou has graduated in chemistry from the Aristotle University of Thessaloniki, Greece and obtained an MBA from Durham University Business School, UK. Ms Theodoridou joined the European Patent Office (EPO) in 1987 and has been working as an examiner in the field of cement and concrete compositions since 1989. She was involved in the development of the Y02P40 classification scheme on processing of Minerals under the theme of Climate Change Mitigation Technologies. As of 2015, Ms Theodoridou is a Team Manager in the sector Healthcare-Biotechnology-Chemistry (HBC).



Dr. Murray B. Isman

Dr. Murray Isman is Dean Emeritus of the Faculty of Land and Food Systems at the University of British Columbia, Vancouver, Canada. As Professor of Entomology and Toxicology, he performed extensive research for over 40 years in the areas of insect toxicology and behaviour, with particular emphasis on the discovery and development of botanical insecticides. He has authored over 200 peer-reviewed publications (cited over 17,000 times), including 30 book chapters, and co-edited two books. In 2011 he received the Gold Medal for outstanding achievement from the Entomological Society of Canada and was elected a Fellow of both the Entomological Society of America and the Royal Entomological Society in 2014. He has held visiting or honorary appointments in Germany, Brazil, China and Korea. He received a doctorate in Entomology from the University of California at Davis in 1981.





Dr. Val Frenkel

Dr. Val S. Frenkel is well known in the water industry with his expertise in water and wastewater treatment, water reuse, and membrane technologies, including desalination. Equally instrumental was Dr. Frenkel's role in the development of low-pressure membrane technologies and applications which are used and taught at the university level.

Developing, leading and delivering near 300 projects globally Dr. Frenkel's works go far beyond his job scope as they are published extensively both in the United States of America and abroad, authoring several patents in the process. He has more than 100 publications including 21 books and national manual of practices by Water Environmental Federation (WEF), American Water Works Association (AWWA) and American Society of Civil Engineers (ASCE) touching on the areas of water, wastewater treatment, desalination and salinity management. For his works, Dr. Frenkel has received numerous accolades from the likes of the International Desalination Association and American Academy of Environmental Engineering. At the same time, Dr. Frenkel is also a Diplomat, Water Resources Engineer (D.WRE) of the American Academy of Water Resources Engineers (AAWRE), which is part of the Academy of the Civil Engineering Certification, Inc. (CEC).

Dr. Frenkel elected Fellow International Water Association (IWA), Fellow WEF and Fellow ASCE/EWRI.

Agenda – Monday, 14 March 2022

Time shown in Brasília time zone (GMT-3)

Moderator: Isabella Pimentel, Advisor to the Brazil Office of the World Intellectual Property Organization (WIPO)

09:30 - 09:50 Welcome & Opening of Capacity Building

Liane Lage, Director of Patents, Computer Programs and Topography of Integrated Circuits, National Institute of Industrial Property of Brazil (INPI)

Carlos Mussi, Director of the Brazil Office, the Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL) of the United Nations

Cristina Carvalho, Project Manager, Delegation of the European Union to Brazil

09:50 - 10:00 Green Technologies Capacity Building: an overview of the agenda, content and lecturers

Fernando Cassibi, Industrial Property Researcher at the National Institute of Industrial Property (INPI) of Brazil

10:00 - 11:00 Lecture: Biofuel Production from lignocellulosic feedstocks

Dr. Dimitrios Mertzis

11:00 - 11:30 Questions and answers

Dr. Dimitrios Mertzis answers questions by the audience

11:30 - 12:00 Break

12:00 - 13:00 Lecture: Liquid fuels: an overview of biofuels

Dr.-Ing. Franziska Müller-Langer

13:00 – 13:30 Questions and answers

Dr.-Ing. Franziska Müller-Langer answers questions by the audience

13:30 End of Day 1

Agenda – Tuesday, 15 March 2022

Time shown in Brasília time zone (GMT-3)

Moderator: Iloana Rocha, Head of the Division of Bilateral Relations at the National Institute of Industrial Property (INPI) of Brazil

- 09:30 - 09:35** Welcome and introduction of lecturers
 - 09:35 - 10:25** Lecture: Biofuels that deploy genetically modified organisms
Mr Gunnar Schröder
 - 10:25 - 10:35** Questions and answers
Mr Gunnar Schröder answers questions by the audience
 - 10:35 - 11:25** Lecture: Use of waste in the production of concrete
Ms Katerina Theodoridou
 - 11:25 - 11:35** Questions and answers
Ms Katerina Theodoridou answers questions by the audience
 - 11:35 - 12:00** Break
 - 12:00 - 13:00** Lecture: Treatment of water, wastewater, sewage, or sludge
Dr. Val Frenkel
 - 13:00 - 13:30** Questions and answers
Dr. Val Frenkel answers questions by the audience
 - 13:30** End of Day 2
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Agenda – Wednesday, 16 March 2022

Time shown in Brasília time zone (GMT-3)

Moderator: Iloana Rocha, Head of the Division of Bilateral Relations at the National Institute of Industrial Property (INPI) of Brazil

09:30 - 09:35 Welcome and introduction of lecturers

09:35 - 10:35 Lecture: Air pollution control technologies

Dr. Jens Peter Hansen

10:35 - 11:05 Questions and answers

Dr. Jens Peter Hansen answers questions by the audience

11:05 - 12:00 Break

12:00 - 13:00 Lecture: Waste recovery or reuse

Dr. Val Frenkel

13:00 - 13:30 Questions and answers

Dr. Val Frenkel answers questions by the audience

13:30 End of Day 3

Agenda – Thursday, 17 March 2022

Time shown in Brasília time zone (GMT-3)

Moderator: Iloana Rocha, Head of the Division of Bilateral Relations at the National Institute of Industrial Property (INPI) of Brazil

- 09:30 - 09:35** **Welcome**
- 09:35 - 10:00** **Presentation: The Big Push for Sustainability: an approach for a transformative recovery towards sustainability and equality**
Carlos Mussi, Director of ECLAC Brazil Office
- 10:00 - 11:00** **Lecture: Alternative pesticides for sustainable agriculture**
Dr. Murray B. Isman
- 11:00 - 11:30** **Questions and answers**
Dr. Murray B. Isman answers questions by the audience
- 11:30 - 12:00** **Break**
- 12:00 - 13:00** **Lecture: Green chemistry**
Dr. Val Frenkel
- 13:00 - 13:30** **Questions and answers**
Dr. Val Frenkel answers questions by the audience
- 13:30 - 13:45** **Close of the capacity building**
INPI Representative
ECLAC Representative
- 13:45** **End of Day 4**
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Further information and contact:
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