



Article from the French Association of  
Paint, Varnish, Printing Ink, Glue and Adhesive Technicians



EUROPEAN TECHNICAL COATINGS CONGRESS

ETCC

A hundred or so conferences  
and an exhibition

Paris, July 2024 – **Congress participants will have a comprehensive, global view of innovations and trends in the formulation industries. The event, co-organised by AFTPVA and Fatipec (Federation of Associations for Industries of Paints in European Countries), is held every two years. This year, the European Technical Coatings Congress will be held in Avignon from 23 to 25 September.**

[Sign-up](#) to participate.

The conferences will feature some one hundred speakers, including doctors, researchers, chemists, technical managers, engineers and experts, sustainable development managers, industrial group managers, professors and young scientists. They come from countries as diverse as Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, Iran, Japan, Netherlands, Nigeria, Norway, Poland, Spain, Switzerland, Turkey, Ukraine, United Kingdom and the United States.

### **The spirit of collaborative working**

In the opening plenary session, André Van Linden, AkzoNobel R&D Director, will be promoting collaborative working as the fastest way to achieve sustainable coatings.

3 other plenary sessions and 97 conferences will be held around 12 themes, all focusing on technical and application performance, with an emphasis on sustainability and decarbonisation. In this context, biosourced solutions are making remarkable inroads.



## Article from the French Association of Paint, Varnish, Printing Ink, Glue and Adhesive Technicians

### 1. Innovations in application and production (1 plenary session and 13 conferences)

The plenary session, moderated by Dr Christel Pierlot from the Institut central de Lille (UCCS), will focus on the biosourced alkyd resin emulsion inversion process monitored in situ by light coupling and backscattering.

Reducing product consumption and biocides, developing bio-based products and low-carbon solutions, improving the performance of aqueous solutions and powder coatings, and digitising paint plants are just some of the topics covered at the conferences. They outline the trends and the future of the formulation chemistry industry, ecodesign, formulation and production processes.

### 2. Scientific advances in paints, adhesives, printing inks and related products (1 plenary session and 19 conferences)

During the plenary session, Professor Jaime C Grulan from the University of Texas will demonstrate the performance of nanocomposite coatings based on polyelectrolytes for thermal and fire protection.

The lectures will be largely devoted to advances in protection and resistance: evaluation of protection against corrosion, oleochemistry, environmentally-friendly coatings, glaciophobes, photocatalytics; resistance to chemicals, weathering; thermal protection, flame retardant; application (low-temperature drying); alternatives to titanium dioxide and fluorinated additives.

### 3. Bio-based solutions (9 conferences)

The biobased offering is expanding to include components and additives for an ever wider range of uses: 100% biobased binders; additives for coil coatings; coatings applied to innovative mycelial materials (strength and lightness) for the fashion and automotive industries; pine-based solutions for packaging; lignin-derived materials for radical photopolymerisation in coatings science; use of biopolymers (green paints, coatings), vegetable oils (latex coatings), dent corn (base monomer, biosolvent).

Article from the French Association of  
Paint, Varnish, Printing Ink, Glue and Adhesive Technicians

**4. Construction materials** (11 conferences)

The innovations and technologies presented improve the protective performance of coatings: formulation of insulating paint, thermal regulation; solar reflectivity of exterior architectural coatings; solid/liquid interaction in geopolymers; durability of coatings (silicone additives, UV); protection of facade coatings (fast-setting technologies); improved conductivity (graphene); intumescent coatings (expansion under the effect of heat forming a protection that slows down combustion); low-exudation binders; coating of latex-modified cements.

**5. Carbon footprint** (5 conferences)

The conferences explore solutions for reducing CO<sub>2</sub> emissions in various technologies, including waterborne and biobased: water-based alkyd emulsion; advanced methods for replacing fossil raw materials in coatings and inks; tailor-made biobased copolymers (performance additives); durability of energy-curable PU dispersions.

**6. Colours and dyes** (1 plenary session and 3 conferences)

During the plenary session, Larissa Noury from Culture Espace Couleur will talk about the place of colours in cities.

The conference will look at reducing costs and carbon footprints with TiO<sub>2</sub> composite pigments; the influence of oxidic pigments; and improving natural pigments combined with oxydics.

**7. Corrosion protection** (9 conferences)

Speakers will discuss multi-purpose and hybrid coatings and additives, bio-based anti-corrosion inhibitors (fruit waste, lignin phosphate) and a number of experiments.

**8. Formulations** (8 conferences)

The conferences will provide an overview of the booming innovation in formulations: high-performance coating additives in different market applications, wetting and defoaming additives; significant advances in polyurethane thickeners; durability and opacity of composite pigments; digital approach to formulation design.

## Article from the French Association of Paint, Varnish, Printing Ink, Glue and Adhesive Technicians

Indissociable from substances and chemistry, formulations are very closely monitored by regulations. Nancy Sauvan, Head of Product Regulatory Affairs at Fipec, will review the challenges facing formulators.

### **9. Measurement and testing** (9 conferences)

In addition to validating the properties and qualities of products, measurements and tests are a lever for optimising costs and resources: improving water resistance; obtaining a green card for coating products; optimising quality, reducing costs and saving resources; checking the stability of a formulation; thermographic methods (corrosion test panel), modelling and experiments (TiO<sub>2</sub> breakage, modifying properties during ageing tests).

### **10. Smartcoatings** (3 conferences)

How can we make coatings ever more intelligent? These talks will look at the application of multifunctional poly(phosphorylcholine) coatings; fire-retardant acrylic coatings; air pollution control and decontamination using oxidation photocatalysis; CNSL oxyacetic acid, a new binder.

### **11. Sustainability** (5 conferences)

When it comes to sustainability, biobased solutions are once again to be found, but not exclusively. 5 conferences will provide 5 technical leads: sustainable emulsions (binders for coatings); solutions for acrylic emulsion; replacement of PFAS; biosourced solutions for hydrocarbon solvents.

### **12. Wood as a substrate** (3 conferences)

As a specialist product, wood is the subject of a chapter in its own right, focusing on durability in the protection of the material and the composition of products: high-performance catalysts; assessment of the risk of cracking in coatings; more durable binders and water-based coatings.

Article from the French Association of  
Paint, Varnish, Printing Ink, Glue and Adhesive Technicians

### **"COATINGS EVOLUTION" EXHIBITION**

Alongside the conferences will be the 'Coatings Evolution' exhibition, a laboratory of ideas, innovative solutions and progress. It will bring together 18 international exhibitors, doctors, researchers, professors, students, PhD students and R&D Directors from universities, scientific and technological institutes, research networks and industrial groups.

You will be able to discover :

- Dispersant additives
- Corrosion protection solutions
- Thermal, infrared and air drying technologies, and solutions for cooling electrical cells
- Bio-based products
- Primers, biohybrid and high-performance coatings
- Primer formulations for adhesion
- Energy-saving solutions using paints and coatings

By taking part in the conference, you will be able to keep abreast of the latest formulation developments to design high-performance, differentiating, sustainable and low-carbon paints, coatings, assembly products and inks.

Access the [programme](#) and the list of exhibitors

[More information](#)

[www.aftpva.org](http://www.aftpva.org)