

Sustainable packaging. Knowledge that takes you further.

Expert talks and seminars for companies and event organisers - from food to technical products.



AI-generated concept image: material diversity, the bioeconomy and technology. Not an actual client application.

Consider material choice, product protection, processes and commercial viability together. Covering fibre-based materials, paper, paperboard, cardboard, plastics, glass and metals, as well as relevant combinations.

01 Expert talks - An informed view of material trends, the bioeconomy and sustainable packaging.

02 Tailored seminars - Combine 52 topic modules into your own one- or two-day learning programme.

03 Packaging review - Scientific advisory services for packaging optimisation: analyse and assess opportunities on site.

04 In-house workshops - Connect expert input, your own packaging examples and practical next steps.

With Prof. Dr. Markus Schmid. In person or live online. Content and dates by arrangement.

Industry, materials and commercial viability

Four suggestions to get started. The referenced modules are described in the topic catalogue that follows.

S05 · 1 day · 315 minutes of topic modules

Developing more sustainable industrial packaging

Improve material efficiency and product protection in your business

Who it is for: Procurement, logistics, development, production and sustainability professionals in manufacturing businesses

Your benefit: Participants prioritise improvement options and identify the data needed for trials.

Modules: G02, I01, I02, I03, N08, P05 · [Customise in the builder](#)

S06 · 1 day · 300 minutes of topic modules

Comparing packaging proposals on technical merit

Build a basis for decisions across procurement and technical teams

Who it is for: Purchasing and strategic procurement, together with their development and quality counterparts

Your benefit: Participants assess alternatives using a matrix covering suitability, costs and data quality.

Modules: G03, G04, M01, I04, I05, P03 · [Customise in the builder](#)

S07 · 1 day · 310 minutes of topic modules

Bio-based packaging: a practical assessment

Assess the application readiness and limitations of new materials

Who it is for: Material and packaging development, innovation, application technology and sustainability management

Your benefit: Participants make a reasoned choice between monitoring developments, obtaining samples and running trials.

Modules: N01, M07, M08, N07, N02, N04, G05 · [Customise in the builder](#)

S08 · 2 days · 615 minutes of topic modules

Managing packaging changes as a project

From material concept to an agreed trial plan in two days

Who it is for: Project management, packaging development, quality, production, procurement and technical sales

Your benefit: Participants clarify responsibilities and prepare a template for the approval decision.

Modules: G02, G03, M01, M06, N02, N04, P01, P02, I04, P04, P05, P07 · [Customise in the builder](#)

Food and product protection

Four suggestions to get started. The referenced modules are described in the topic catalogue that follows.

S01 · 1 day · 300 minutes of topic modules

Paper or mono-material for food packaging

Compare alternatives and prepare the right trials

Who it is for: Packaging development, procurement, quality management and application technology

Your benefit: Participants create a decision matrix with outstanding test questions for two packaging alternatives.

Modules: G02, M02, M06, M08, N02, P04 · [Customise in the builder](#)

S02 · 1 day · 315 minutes of topic modules

The right level of barrier protection

Define product protection needs and identify overengineered packaging

Who it is for: Packaging development, film and paper manufacturers, application technology and technical sales

Your benefit: Participants use a calculation example to derive a requirements profile and identify the data still needed.

Modules: G04, G02, F01, T01, T02, T03 · [Customise in the builder](#)

S03 · 1 day · 315 minutes of topic modules

Preparing food packaging changes with confidence

Systematically address shelf life and quality during the transition

Who it is for: Quality management, quality assurance, product development and production in food businesses

Your benefit: Participants design a testing and coordination plan with defined responsibilities.

Modules: G02, F01, T06, R02, F06, P04 · [Customise in the builder](#)

S04 · 1 day · 315 minutes of topic modules

Rethinking packaging for meat and sausages

Assess shelf life, colour and sustainability together

Who it is for: Meat and sausage manufacturers, specialist businesses, quality assurance and packaging professionals

Your benefit: Participants assess a more sustainable alternative using a specific product example.

Modules: F01, F02, F03, M02, N02, P03 · [Customise in the builder](#)

52 topics.

A programme of your own.

Combine the modules below to suit your needs. All durations are approximate and include brief clarification questions. Examples and technical depth are adapted to your audience.

One day: up to 315 minutes of topic modules + 45 minutes for introduction, discussion and application + 60 minutes of breaks. Around seven hours in total.

Two days: the same time allowances per day. Individual modules are not split in the builder.

Search and filter by industry, topic and duration: [Open the online seminar builder](#)

Fundamentals & informed decisions

G01 Understanding packaging as a system · approx. 30 min

Protection, handling, information and process compatibility: what does packaging need to deliver throughout the value chain?

G02 From product characteristics to packaging requirements · approx. 45 min

Translate product characteristics, transport, storage and processing conditions into specific packaging requirements.

G03 Reading material data sheets correctly · approx. 45 min

Understand properties, test conditions, units and tolerances; distinguish genuinely comparable data from figures that only appear comparable.

G04 Defining metrics and reference quantities · approx. 30 min

Consider material mass, the packaging unit and the protected product as reference quantities. Convert quantities and units using straightforward examples.

G05 Keeping commercial viability in view · approx. 20 min

Why the price of the packaging alone is not a sound basis for a decision: an overview of processing, losses and changeover costs.

Packaging materials & structures

M01 Comparing packaging material families · approx. 45 min

Compare fibres, paper, board, cartonboard, plastics, glass and metals in terms of function, processing and recovery routes.

M02 Paper, board, cartonboard and moulded fibre · approx. 45 min

Fibre-based packaging materials, corrugated board and moulded components: strength, moisture sensitivity, protective functions and typical limitations.

Packaging materials & structures · continued

M03 Selecting plastics for the application · approx. 45 min

PE, PP, PET and other packaging plastics: property profiles, typical applications and trade-offs.

M04 Glass packaging in its application context · approx. 30 min

Consider protection, weight, breakage risk, closures and reuse together.

M05 Metal packaging in its application context · approx. 30 min

Aluminium and tinplate: an overview of barrier properties, dimensional stability, coatings and composite structures.

M06 Mono-material and multilayer structures · approx. 60 min

Understand the functions of individual layers. Weigh protection requirements, processability and recycling considerations when moving to simpler structures.

M07 Bioplastics: properties and application readiness · approx. 60 min

Distinguish bio-based from biodegradable plastics; assess materials including PLA, PHA and starch-based systems in terms of application and processing.

M08 Barrier papers and functional coatings · approx. 45 min

How coatings add functionality to paper and fibre products: consider protection, coating application and recovery together.

M09 Including adhesives, printing and finishing in the assessment · approx. 45 min

Treat bonding and finishing layers as part of the packaging system: function, separability and relevant supplier information.

Protective functions & processes

T01 Permeation and barrier properties explained · approx. 60 min

Oxygen, water vapour and gas transmission: mechanisms, influencing factors, measured values and test conditions.

T02 Specifying the barrier performance actually needed · approx. 90 min

From protection needs to the required barrier: calculation examples involving surface area, layer thickness, permeability and duration of use.

T03 The effects of temperature, humidity and light · approx. 45 min

How environmental conditions change material properties and product stability, and why laboratory values need checking before being applied in practice.

T04 Understanding film production and forming · approx. 45 min

Extrusion, coextrusion, orientation and thermoforming: links between manufacturing, structure and packaging properties.

T05 Laminating, coating and adding functionality · approx. 45 min

Compare lamination, organic and inorganic barriers, and coating processes.

Protective functions & processes · continued

T06 Sealing and pack integrity when changing materials · approx. 45 min

Sealing range, contamination, material structure and the process window as factors affecting packaging integrity.

T07 Active and intelligent packaging · approx. 45 min

Scavengers, active components and indicators: operating principles, practical benefits and limitations.

Sustainability & the bioeconomy

N01 Making sense of sustainability terminology · approx. 20 min

Bio-based, biodegradable, compostable, recyclable and recycled-content: what the terms mean and how their claims differ.

N02 Understanding the technical basis of recyclability · approx. 45 min

Collection, sorting and recovery, and the influence of material combinations, labels and coatings.

N03 Using recycled materials effectively · approx. 45 min

Property variation, quality, origin and application requirements of recycled materials.

N04 Reading and comparing life cycle assessments · approx. 60 min

Understand functional units, system boundaries, impact categories and data quality through packaging examples.

N05 Carbon footprints and trade-offs · approx. 45 min

Assess climate impacts, recognise the assumptions behind comparison figures and take other environmental impacts into account.

N06 Making a sound comparison of single-use and reusable systems · approx. 45 min

Reuse cycles, return rates, cleaning, transport and losses as key factors when comparing systems.

N07 Bioeconomy: from residual streams to packaging materials · approx. 60 min

Biogenic raw materials, proteins, polysaccharides and side streams: material potential, functionalisation and industrial scale-up.

N08 Reducing material while maintaining function · approx. 45 min

Systematically review wall thickness, grammage, dimensions and protective structures. Weigh potential savings against possible product losses and process inefficiencies.

Regulations & supporting evidence

R01 PPWR: an overview for packaging professionals · approx. 60 min

The structure and topics of the EU Packaging and Packaging Waste Regulation: packaging minimisation, recycling, recycled content and reuse, and the significance of phased application dates.

Regulations & supporting evidence · continued

R02 Food contact: fundamentals and interfaces · approx. 60 min

Understand the European framework for food contact materials, good manufacturing practice and material-specific rules from a technical perspective.

R03 Understanding compliance documentation and supporting evidence · approx. 45 min

Examine conditions of use, the basis for testing, traceability and information in supplier documents through examples.

R04 Substantiating environmental claims · approx. 30 min

Which data support a claim about material reduction, recycling or climate impact? Reference quantities, limitations and transparency.

Food & shelf life

F01 Food spoilage and packaging protection · approx. 45 min

Oxidation, changes in moisture and microbiological factors in the interaction between product and packaging.

F02 Modified atmosphere and vacuum packaging · approx. 60 min

MAP and vacuum packaging: product requirements, gas composition, barrier performance and typical failure patterns.

F03 Packaging meat and sausages to match product needs · approx. 60 min

Discuss colour, oxidation, exudate, shelf life and material changes using examples specific to meat products.

F04 Packaging fresh and convenience foods · approx. 45 min

Compare the packaging requirements of dairy products, cheese and ready-to-eat foods using selected examples.

F05 Protecting coffee, powders and dry products · approx. 45 min

Moisture uptake, aroma, oxygen and degassing as requirements for films, closures and the packaging system.

F06 Safeguarding shelf life when changing packaging · approx. 60 min

Plan test conditions, reference packaging, relevant quality attributes and evaluation methods for shelf-life trials.

Industry, procurement & logistics

I01 Packaging technical products and components · approx. 45 min

Structure requirements for mechanical loading, surface protection, moisture protection and handling in an industrial supply chain.

I02 Empty space, cushioning and packaging size · approx. 45 min

Consider format selection, fill ratio, cushioning and the number of packaging variants together. Treat overpackaging as a hypothesis to be tested.

I03 Packaging in day-to-day operations · approx. 45 min

Packing stations, material supply, cycle times, changeovers, scrap and ergonomic handling as part of the packaging decision.

Industry, procurement & logistics · continued

I04 Comparing the full costs of packaging · approx. 60 min

Combine packaging prices, material consumption, processing effort, logistics and potential product losses in a straightforward comparison model.

I05 Comparing supplier proposals on technical merit · approx. 60 min

Systematically compare requirements, samples, data quality and quotation terms.

I06 Transport and reusable packaging in operations · approx. 45 min

Consider load carriers, return logistics, cleaning, loss rates and standardised formats as part of the packaging system.

Project work & practical application

P01 Setting up a packaging change project · approx. 45 min

Clarify the brief, objective, scope, milestones and decision-making process for a packaging project.

P02 Clarifying interfaces and responsibilities · approx. 30 min

Involve procurement, development, quality, production and logistics; jointly define requirements and approval routes.

P03 Practical exercise: assessing alternatives · approx. 60 min

Compare two packaging options using examples agreed in advance, considering function, costs, environmental aspects and data quality.

P04 Developing a sampling and trial plan · approx. 60 min

Document trials, comparison conditions, test criteria and responsibilities for a material change.

P05 Prioritising opportunities and planning actions · approx. 90 min

Rank improvement ideas by benefit, effort, risk and available evidence; define next steps and responsibilities.

P06 Case workshop using your own packaging · approx. 90 min

Work systematically with the team on a small selection of your own examples agreed in advance; bring together available data and outstanding questions.

P07 Measuring benefits and communicating results · approx. 30 min

Prepare the baseline, targets, follow-up process and a clear presentation of results for decision-makers.

Practical and case-study modules use examples agreed in advance. The eight seminar suggestions are starting combinations: modules can be exchanged, added or combined from scratch. You can also enquire about an individual seminar without using the online builder.

Practice. Science. Commercial insight.



Prof. Dr. Markus Schmid

My career combines skilled-trades practice, business management and applied packaging research. These perspectives shape my talks, seminars and scientific advisory services for packaging optimisation.

In my main employment, I am Professor of Process Engineering and Process Design and Director of the Sustainable Packaging Institute SPI at Albstadt-Sigmaringen University.

Master butcher (Fleischermeister), qualified vocational trainer

Practical operations and clear communication: ideas must work in day-to-day production.

Business management qualification for the skilled trades (Betriebswirt des Handwerks)

Commercial viability: assess material costs, effort, waste and changeover requirements together.

Dipl.-Ing. (FH), Food Technology · M.Sc., Food Processing

Applied science: define requirements and check the benefits using suitable performance indicators. The German engineering diploma was awarded by a university of applied sciences.

Doctorate at the Chair of Food Packaging Technology, Technical University of Munich

Scientific depth: critically assess data, material properties and studies; distinguish assumptions from evidence.

Fraunhofer IVV · material development and biopolymers

Connecting research with industrial applications: from the material concept and testing to process requirements.

Professor of Process Engineering and Process Design

Main employment at Albstadt-Sigmaringen University: process insight, structured teaching and interdisciplinary perspectives.

Director of the Sustainable Packaging Institute SPI

Institute leadership in my main employment: putting sustainable packaging, the bioeconomy and the interplay of different materials into context.

Portrait: © KREATIV KOMPANIE GmbH. Career information based on the supplied curricula vitae.

Your packaging question. Our next conversation.

For an initial discussion, simply share your industry, the question you want to address, the intended audience and your preferred timeframe. This is the starting point for an individual proposal with a clearly defined scope.

Prof. Dr. Markus Schmid · Food Innovations - and beyond

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Independent freelance activity alongside my main employment

The services presented in this document are offered through my independent freelance activity alongside my main employment, under the name Food Innovations. I provide them under my own responsibility and on my own account. The university and research roles mentioned explain my professional background; the university and SPI are not the providers or contracting parties for these services.

The offering is limited exclusively to scientific activities and lecturing activities that I perform personally within the meaning of section 63(1), no. 3 of the Baden-Württemberg Civil Servants Act (Landesbeamtengesetz, LBG). These include the expert talks, seminar and workshop formats, and scientific advisory services for packaging optimisation described here. Services outside this scope that require approval are not included in this offering.

I notify my supervising authority of each planned paid secondary activity in good time before it begins, in accordance with the applicable notification requirements (section 63(2) LBG).

I am happy to discuss research collaborations and research services in my main role at Albstadt-Sigmaringen University. Such services are not offered through Food Innovations. Further information and contact details are available from the Sustainable Packaging Institute SPI (university website).

Regulatory topics cover the fundamentals and their technical interfaces. Case-specific legal advice is not part of the seminars.