PART 1 NEW PRODUCT DEVELOPMENT HEAD-ON: TRENDS, PROCESSES AND PERSPECTIVES

Consumer-oriented innovation in the food and personal care products sectors: understanding consumers and using their insights in the innovation process
K G Grunert, B B Jensen, A-M Sonne, K Brunsø and J Scholderer, Aarhus University, D V Byrne, University of Copenhagen, C Clausen, A Friis and G Hyldig, Technical University of Denmark, L. Holm, University of Copenhagen, N H Kristensen, Aalborg University, Denmark and C Lettl, Vienna University of Economics and Business, Austria
- Introduction
- Understanding consumer preferences in food markets
- Innovation management and market orientation
- Final Perspective
- References

Changes in food retailing and their implications for new product development
J Dawson, Universities of Edinburgh and Stirling, Scotland
- Fundamental innovations in food retailing
- Directions of change in food retailing
- Food retail growth model
- Key areas of innovation for food retailers
- Conclusion
- Sources of further information and advice
- References

Recent advances in commercial concept research for product development
S Porretta, Experimental Station for the Food Preserving Industry, Italy, H Moskowitz, Moskowitz Jacobs Inc., USA and J Hartmann, Unilever Foods, The Netherlands
- Prologue: corporate structures and the new role of research and development (R&D) as innovators in food and beverages
- Where do ideas reside? Entry points for the big ideas and ideation in general
- Discovering opportunities and the use of deep knowledge
- The role of research and development (R&D) in food companies
- Different world-views: academia versus industry
- Concept writing is strategy exploration
- Tapping the consumer mind
- Ideation tools to pull out good ideas
- Concepts born of observing
- Concepts born of collaboration and the 'wisdom of the many'
- Concept writing – how to do it and how to do it well
- Concept screening
- Qualitative screening
- Screening promises and full concepts
- Simulated market test at the concept level
- Experimental design of concepts
- A short introduction to design: concepts about water
- Putting it all together: from the concept research to the design and sales messaging
- Creating the product and marketing it
- Summing up
- Acknowledgement
- References

Innovation strategies and trends in the global fast moving consumer goods sector: an interview with Mintel's Jo Pye
J Pye, Mintel International, Australia and S R Jaeger, The New Zealand Institute for Plant and Food Research Limited, New Zealand
- Interview with Jo Pye
- References and further reading
- Short biography for Jo Pye

**Innovation in foods and personal care products: an interview with Gail Civille**
G V Civille, Sensory Spectrum Inc., USA and S R Jaeger, The New Zealand Institute for Plant and Food Research, New Zealand
- Interview with Gail Civille
- Sources of further information and advice
- Short biography for Gail Civille

**Innovation in sensory practice and education: an interview with Howard Schutz**
H G Schutz, University of California at Davis, USA and S R Jaeger, The New Zealand Institute for Plant and Food Research, New Zealand
- Interview with Howard Schutz
- References and further reading
- Short biography for Howard Schutz

**PART 2 HEDONIC SCALING IN NEW PRODUCT DEVELOPMENT: PAST, PRESENT AND FUTURE**

**Hedonic measurement for product development: new methods for direct and indirect scaling**
A V Cardello, US Army Natick Soldier R, D & E Center, USA and S R Jaeger, The New Zealand Institute for Plant and Food Research, New Zealand
- Introduction
- Historical developments in the scaling of hedonics
- Best-worst scaling: a modern approach to indirect scaling
- Labeled magnitude Scales: a modern approach to direct scaling
- Comparisons among hedonic scaling methods
- Recommendations and conclusions
- References

**The effects of context on liking: implications for hedonic measurements in new product development**
J Delarue, AgroParisTech and I Boutrolle, Danone Research, France
- Introduction
- Current practice of hedonic tests: central location test (CLT) and home use test (HUT)
- How context may affect preferences
- When choosing CLT vs home use test HUT: recommendations to manufacturers
- How to improve food testing to enhance integration of eating/drinking situation variables
- Future trends
- References

**Going beyond liking: measuring emotional and conceptual profiles to make better new products**
D Thomson, MMR Research Worldwide Inc., UK
- Introduction
- Part 1: Understanding consumer choice processes
- Part 2: Measuring conceptualisations
- Part 3: Conceptual profiling case studies
- Conclusions
- Acknowledgements
PART 3 CONSUMER RESEARCH METHODS IN NEW PRODUCT DEVELOPMENT

Consumer understanding and reaction to health claims: insights and methodology
M Rogeaux, Danone Research, France
- Introduction
- Functional foods
- The process of consumer understanding of the health benefit
- How to evaluate the consumer understanding with a consumer test? Introduction of a new method: consumer understanding test (CUT)
- Future trends
- Sources of further information and advice
- References

Pricing for new product development
L Lockshin and S Mueller, University of South Australia, Australia
- Introduction
- Rules of thumb for pricing new flavours, styles, and brand extensions
- Pricing for new to the world products or features
- Hedonic price analysis (HPA)
- Basic discrete choice experiments
- Summary
- Sources of further information and advice
- References

Experimental auction markets for studying consumer preferences
J L Lusk, Oklahoma State University, USA
- Introduction
- Experimental auctions in action
- Frontier research in experimental auction markets
- Sources of further information and advice
- References

Doing consumer research in the field
C R Payne, The New Mexico State University School of Business and B Wansink, Cornell University, USA
- Introduction
- The nature of the field
- Consumer field study considerations
- Field mistakes
- Conclusion
- Sources of further information and advice
- References

The importance of consumer involvement and implications for new product development
I Lesschaeve, Vineland Research and Innovation Centre, Canada, J Bruwer, The University of Adelaide, Australia
- Introduction
- Theoretical background of the involvement construct
- Measurement methods
- Consumer involvement scales
- Moderating role of involvement on consumer purchase and consumption behaviours
- Implications for consumer-driven innovation
- References

PART 4 STATISTICS AND NEW PRODUCT DEVELOPMENT

Statistical design of experiments in the 21st Century and implications for consumer product testing
B T Carr, Carr Consulting, USA
- Introduction
- Advantages of statistical design of experiments (DOE)
- Factorial experiments
- Screening experiments
- Optimization experiments
- Mixture experiments
- Selecting experimental variables and their ranges
- Traditional designs and computer-aided optimal designs
- Implications of production testing with consumers
- References

Data handling in cross-cultural studies: measurement invariance
J Scholderer, Aarhus University, Denmark
- Introduction
- Assessing measurement invariance
- Numerical example of data handling in cross-cultural studies
- Correcting for bias: three strategies
- Conclusion
- References
- Appendix

Bayesian networks for food science: theoretical background and potential applications
V A Phan, U Garczarek, M Dekker and M A J S van Boekel, Wageningen University and U Garczarek, Unilever Food and Health Research Institute, The Netherlands
- Introduction
- Concepts of Bayesian networks
- Use of Bayesian networks
- Inference in simple models
- Inference in complex models
- Learning Bayesian networks
- Discussions
- Sources of further information and advice
- Reference
- Appendix

PART 5 NEW PRODUCT DEVELOPMENT IN THE FUTURE: NEW CONSUMER TRENDS, NEW SCIENCE

Corporate social responsibility – does it matter to consumers?
S C Beckmann, Copenhagen Business School, Denmark
- Introducing the topic
- What constitutes corporate social responsibility (CSR)? Mapping the fields of consumers’ response to corporate social responsibility (CSR)
- New product development and corporate social responsibility (CSR)
- Future trends
- References
Anti-consumption: a cause for concern in the food and personal care products sectors?
M S W Lee, The University of Auckland Business School, New Zealand
- Introduction
- Anti-consumption and personal care products and innovation in food
- Summary
- Future trends
- Sources of further information and advice
- References and further reading

Genetic variation in taste and odour perception: an emerging science to guide new product development
R D Newcomb, J McRae, J Ingram, K Elborough and S R Jaeger, The New Zealand Institute for Plant and Food Research Limited, New Zealand
- Introduction
- The genetics of human taste perception
- Genetics of odour perception
- The impact of genetic variation on food preference and consumption
- Industry opportunities and issues
- Summary
- Sources of further information and advice
- References

Neuroimaging of sensory perception and hedonic reward
M G Veldhuizen, Yale University School of Medicine, USA
- Introduction
- Neuroimaging techniques
- Key neural substrates of pleasantness
- Product choice and neuroeconomics
- Pitfalls of neuroimaging of sensory perception and food reward
- Promises of neuroimaging for new product developers
- Future trends
- Conclusion
- Sources of further information and advice
- References

Molecular gastronomy, chefs and food innovation: an interview with Michael Frøst
M Bom Frøst, University of Copenhagen, Denmark and S R Jaeger, The New Zealand Institute for Plant and Food Research Limited, New Zealand
- Interview with Michael Bom Frøst
- Sources of further information and advice
- Short biography for Michael Bom Frøst