Prepare

**Evaluate** 

Reconcile

Execute

## Key Learning Objectives:

- 1. Establish a framework for demand forecasting in the supply chain
- 2. Introduce a four-step process for streamlining the forecasting cycle
- 3. Define, interpret, visualize major demand forecasting techniques.
- Identify appropriate accuracy measures for evaluating demand fore casting and forecasting models.
- Complement established approaches with non-traditional methods in forecasting model development and evaluation

Certified Professional in Demand Forecasting Workshops

**CPDF<sup>®</sup> I** (Basic Level – Forecasting Principles and Best Practices)



Program is endorsed by the <u>I</u>nternational <u>I</u>nstitute of <u>F</u>orecasters (IIF) www.forecasters.org.

## **CPDF\_I** Basic Level Program

#### WHY STUDY WITH US?

#### 1.International trainers

2.Trainers have long and global experience in demand management and forecasting.

3.High quality and excellent style of delivery with participative debate and discussion, case studies.

4.Blended elearning service through a unique Online Web Platform designed exclusively for CPDF Students.

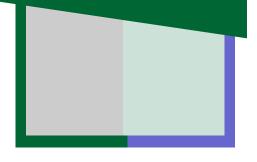
5.100% Student pass rate, endorsed by past and present students in the region.

6.Abilities to enhance local demand date with international experience and theories.

7.Interchange demand forecasting experience management with local culture and knowledge.

# Who Should Attend

Demand Forecasters Supply Chain Managers Demand planners Supply planners Production Managers Operations Managers Financial analysts Market analysts Researchers



## Our Training Partner

## DEPENS

Delphus Inc. i(www.delphus.com )s a privately held corporation, headquartered in Morristown, New Jersey.

#### Established in 1987, the

company has been dedicated to providing strategic market analyses, forecasting software tools and data mining solutions for sales and marketing managers, inventory and production planners in manufacturing, distribution, retail firms and hospital management operations. Delphus clients list contains names like: Kodak, Lucent Technologies, IBM, TAP Pharmaceutical, Pfizer, and more.

### **Program Leader**

**Dr. Hans Levenbach** is the founder and President of Delphus Inc., which specializes in predictive-analytic solutions for demand planning in supply chain organizations. He is also an elected Fellow, former President and Treasurer of the



International Institute of Forecasters (IIF). He has been a member of the editorial board of Foresight Journal, the practitioner journal published by the IIF. He is also a member of APICS, INFORMS, American Statistical Association and an elected member of the International Statistics Institute.

> Hans has been instrumental in designing the "Certified Professional Demand Forecaster" (CPDF<sup>®</sup>) curriculum .www.cpdftraining.org/curriculum.htm

## What is The **CPDF<sup>®</sup>?**

This is a certification program for demand forecasters and planners working in supply chain industries. The International Institute of Forecasters (IIF), a thirty-four year-old non-profit membership organization whose purpose is to advance knowledge and research in forecasting, has endorsed it. The CPDF program is a 200 hours curriculum comprised of three modules, Basic, Master and Pro. Certification can be earned at each of the three levels. The CPDF qualification will address multidimensional job roles in demand forecasting such as data display and validation, database management, dashboard display, understanding quantitative and qualitative projection techniques, model creation and execution, forecast accuracy measurement, model and forecaster performance analysis, organization, and collaborative planning.

#### CPDF\_I Basic Level: Hands-on workshop overview

#### Dav 1

#### Part 0 - Pre-course Computer Workshop

#### Part I - Demand Forecasting in the Supply Chain

- ♦ What is demand forecasting?
- Operating and the evolution of Supply Chain
- ♦ Who will use the forecast and what are their data needs?
- ♦ Forecasting as a structured process- The PEER Model

Workshop 1: Uncovering Drivers of Demand for New Product/ Service Forecasting

#### Part II - Framing the Demand Forecasting Job

- Data exploration Learning from actual examples
- ♦ Judging the quality of data
- And the second secon
- ◊ What are forecasting models?- Quantitative vs. qualitative methods
- Evaluating forecasts and forecasting models
- Ocombining and reconciling the final forecast

Workshop 2: Exploring Trend and Seasonal Variation. Cases: Ice Cream and Tourism Industry

**Part III** - How To Use Components of a Time Series

- O Moving averages for smoothing kinks out of data
- ♦ Finding the lift in promotions with moving medians
- ◊ Identifying day-of-week effects through ANOVA methods
- Creating additive and multiplicative seasonal factors
- Seasonal adjustment of time series

Workshop 3: Creating Projections with the RMA Decomposition Technique. Cases: Automobile and Energy Industry

#### Part IV - Forecasting with Exponential Smoothing Models

- Why use Naïve forecasting techniques?
- ♦ Types of smoothing weights
- ♦ Forecasting profiles for exponential smoothing
- ♦ Applying univariate time series techniques
- A Handling special events with exponential smoothing models
- $\Diamond$ Scenario forecast
- Product lifecycle  $\diamond$

Workshop 4: Forecasting with Short-term Forecasting Models :

#### Day 2

#### Part V – Measuring Forecast Accuracy

- A Basis of accuracy measurement: Bias and Precision
- ♦ Forecasting accuracy vs. forecasting errors
- Goodness of fit versus forecast performance  $\Diamond$
- $\Diamond$ Cost of inaccurate forecasts
- ♦ Waterfall charts and accuracy measurement

**Workshop 5**: Root Cause Analysis and Exception Reporting. Case: Motorcycle Industry

#### Part VI - Tracking Tools

- ♦ Ladder chart for monitoring forecast model results
- OPPRINT Prediction-Realization Diagram and the business cycle
- Prediction intervals for time series forecasts
- Cumulative tracking signals- Trigg's tracking signal  $\diamond$

Workshop 6: Creating a Time-Phased Order Forecast for **Replenishment Planning** 

## **CPDF** Certification Curriculum **Overview**

Each Level of the CPDF program consists of both instructor-led workshop training hours, and independent hours to be accomplished through self-paced e-learning environment. The successful completion of each level will qualify participants to earn a certificate, CPDF levels & certificates are described below:

Level I : CPDF Principles and Best Practices -Certificate in Demand Forecasting Practice

90	15
Training Hours	75 I

hours hands-on workshop

ours, 6 work sheets E-learning

Level II : CPDF Master - Certificate in Demand Forecasting Proficiency

15 hours hands-on workshop

45 hours, 6 work sheets E-learning

Level III : CPDF Pro - Certificate in Demand Forecasting Professionalism

50 Training Hours

20 hours hands-on workshop

30 hours, 6 work sheets E-learning

#### **Program Requirements:**

- College degree or Job experience
- Reasonable experience in MS Excel
- Acceptable level of English language

#### **Program Assessment:**

- Full attendance of hands-on workshops is required
- Successful submission of required worksheets through e-learning system
- CPDF is not a test-based program.

#### It's a hand-on workshop. Please bring your own laptops to run the computer exercises!!



Part VII - Practical Uses of the Forecast

- Marketing Promotion planning
- ♦ Sales- Pricing: Elasticities
- Operations Safety stock and inventory forecasting
- ♦ Finance Rolling forecasts

Workshop 07: Simulated Forecasting Work Cycle. Case - Consumer Electronics Industry

#### Part VIII - Implementing a Forecasting Process

- ♦ Successful Implementation Strategies
- ♦ Integration with Supply Chain
- ♦ Sales and Operations Planning (S&OP) Or Best-in-breed demand management



## **CPDF\_I** Basic Level Program

#### **How to Register?**

E-mail: <a href="mailto:smartage@smartage.com.tr">smartage@smartage.com.tr</a>

- Web : <u>www.smartage.com.tr</u>
- Tel: +90 312 2650615
- Fax: +90 312 2408263

#### Program Fees: CPDF Basic Level I-

Certificate in Demand Forecasting Practice

2 Days Hands-on Workshop

E-Learning Exercises

USD \$900

USD \$450

Program Fees cover workshop manual, FREE excel Add inns, 50% book discount : *Forecasting: Practice and Process in Demand Management,* Discount on a one-year subscription to IIF Practitioner Journal (*Foresight*), and coffee/tea breaks with lunch.

Group and Early Birds Discounts Available

#### **Registrations are made on first-come first-served basis**

#### Participants Information

1.	Name: Company:			
			Email:	
	Tel:	Fax:	Mobile:	
2.				
	Job Title:		Email:	
	Tel:	Fax:	Mobile:	

#### **Payment Terms**

The registration form has to be sent registration. The registration process is not complete until the registry fee are paid in the bank account <u>most lately 7 days</u> to complete the registration. The registration is completed when sent with both "Registration Form and Bank Receipt". (If the registration form is sent for pre-registration and there is not discussed any change, only bank receipt can be sent.)

#### **Cancellation Policy**

Attendants can cancel their registrations 15 days before the beginning of training. If the attendants cancel their registrations less than 15 days before the beginning of training, 50% of the registry fee is refunded. However, there will not refund if the attendants cancel their registrations less than 10 days before the beginning of training.

The training program can be bring forward or cancel the training for justifiable reasons by SmartAge Inc. If the training program is cancelled, then the registry payments will refund to attendance.

Interested to run this Program in-house?



SmartAge Management Tech. & Cons. Co. Ankara TURKEY <u>smartage@smartage.com.tr</u> www.smartage.com.tr

<u>Just Contact Us</u>