Value Methodology

and

Management

2018

Value Methodology and Management 2018

ISBN 978-615-00-1285-8

Published by
SOCIETY OF THE HUNGARIAN VALUE ANALYSTS
H-1067 Budapest, Eötvös u. 29. mfsz. 2.
Dr. Attila Varga, SHVA President

Edited by Dr. Ilona Hoffer and Istvan Tarjani

Distributed by the SHVA
– SOCIETY OF THE HUNGARIAN VALUE ANALYSTS –
H-1067 Budapest, Eötvös u. 29. mfsz.2.
Email: info@shva.hu

HUF 12.500.-	EUR 40,00	USD 50,00

Budapest 2018.

CONTENT

	Preface to the Reader	5
	The Patrons of the Conference	6
D. Algase	Greetings from SAVE International	9
M. Ninaus	The European Governing Board of the Value Management Training & Certification System, 2018. – Value For Europe	13
B. Lenzer	The Lawrence D. Miles Value Foundation	17
D. Algase	Value Enhancing Methods - VEM	26
I. Almomen	Value Engineering Project Resurrection	40
M. Berlioz	Implementation of Value Management at the SNCF	55
J. D. Bolton	Building an Internal Value Methodology Program for Sustainable and Growth	65
I. Csendes *Z. Fulop*	Evaluation and ranking of urban transportation projects	85
G. Dhayer	Function Analysis basics towards disruptive mindset, analysis & management	95
I. Egner	Value Analysis for 10 years at Paks Nuclear Power Plant Az értékelemzés 10 éve a Paksi Atomerőműben	107
P. Galambos	Value in Cobotics – Hype or Reality?	109
L. Gebhardt	Logistics & VE (Automotive, Electronics parts)	119
M. Graham	Value Culture and Supply Chain Partner Selection	129
O. De Hemmer	What is it for? A 'system' approach to find purpose, reconcile value creation and human values.	132
A. Horvath	The Fourth Industrial Revolution „Industry 4.0"	138
A. Ivanyi *R. Szollosi*	Business Development Strategy with Value Analysis	146
M. Jozo	Engineer to engineer – innovation and sustainability in value engineering	165
V. Katona *I. Hoffer*	Examples of SMEs value creation in Industry 4.0 using VE methodology	173
M. Law	VM Programme Management: Governance and Best Practice	188

B. Lenzer	Improving Process Studies Using Facilitation and Hybrid FAST	201
M. Lorenzini	Value Analysis in the construction sector	219
S. Meindl	How to deal with a multitude of ideas in the evaluation phase of a VA/VE project	238
F. Nadasdi *A. Keszi-Szeremlei*	Value Analysis (Value Methodology) – Innovation Értékelemzés (Value Methodology) – Innováció	258
G. Nemeth *A. Magos*	People Analytics - organizational data for organizational efficiency People Analytics - adatok a szervezetből a szervezeti hatékonyságért	281
M. Ninaus	Value Engineering quo vadis? A future trend projection.	296
S. P. Abraham	From waste management to the trap of the mite	311
A. Panneerselvam	Value Methodology Approach for Single Cone Synchronizer Ring	315
L. Parrot	Value Analysis in Canada: towards a better use of public funds	327
M. Pauwels *M. Cleffmann*	Kettle Outflow Tap - Case Study of a Successful VA/VE Project	337
L. Pesti	Technology Development with VE at a Hungarian Die Casting Company	352
J. Poor	Consulting in Progress a Comparative Analysis with Value Analysis and Value Engineering	368
A. Puttaert	Lean Value Construction©: getting the best of Lean and Value Management by combining these disciplines throughout construction projects	387
C. Sekita	Cases of Applying VE Techniques to Enterprise IT Project and Effects	400
Zs. Szeiner	Value Engineering for Social Purposes	407
Zs. Szeles *A. Papp-Vary* *Z. Szeles*	Value and efficiency in a changing business environment Érték és hatékonyság a változó üzleti környezetben	415
K. Szoka	Controlling and Value Analysis – in the context of Industry 4.0 Kontrolling és értékelemzés – az Ipar 4.0 tükrében	424
A. J. Tarjani	Function Analysis of Distillation Columns	455
I. Tarjani	Sales Activity Supported by Innovation & VM	467
M. T. Tarjanine Illes	The Possible Connections of INDUSTRY 4.0 and Value Methodology	482
B. Ulicsak	Project Management and Value Analysis interdependency A projektvezetés és az értékelemzés kapcsolata	496
A. Wieszt *I. Hoffer*	Application of the F.A.S.T. diagram in model-building - the case of family business consulting process	512
H. Yokota	Improvement of the Work Cell by FAST Diagram Itself	527

PREFACE TO THE READER

Dear Reader,

You hold in your hand a very remarkable publication.

A book containing the lectures of the 6th SAVE EUROPE Conference held in April 19-21, 2018.

This professional event covered the following topics:

- Industry 4.0
- Value Program
- Cost Analysis
- Value Methodology

This publication introduces in the form of either articles or as ppt files 38 lectures that were compiled by 46 authors. The official languages of the conference were English and Hungarian.

The lecturers are either the leading value specialist of 15 countries or the representatives of areas that are connected to value methodology. We introduced in the publication not only the practical and research results of the lecturers, but in addition to this, their professional achievements as well.

The lectures emphasize the methodological issues and the practical applications of the different areas.

In addition to the above-mentioned topics, we also shared the presentations of the leaders of the SAVE International, the EGB (European Governing Board - Value for Europe) and of the L. D. Miles Value Foundation.

We hope that you will read this publication with pleasure and interest and reading it will be beneficial for you!

Ilona Hoffer and Istvan Tarjani
Editors of the Publication

Budapest, 2nd April 2018.

The Patrons of the Conference

Laszlo Vass is an economist, a political scientist, a philosophical university doctor, a candidate of political sciences, a habilitated doctor of management and business administration, a college professor and an associate professor. He has been the General Director and the Rector of the University since the establishment of METU (Budapest Metropolitan University). His field of research is the government, public administration, public administration, public policy and the interest representation. He teaches in Hungarian and in English in the fields of public administration, public affairs, CSR, lobbying and public policy. His publications are published about public and political relations, public service systems, public policy communication and networks in national and international journals.

Vass László, közgazdász, politológus, filozófiai egyetemi doktor, a politikatudomány kandidátusa, a gazdálkodás- és szervezéstudományok habilitált doktora. Főiskolai tanár, egyetemi docens. A METU alapítása óta az intézmény főigazgatója, rektora. Kutatási területe a kormányzat, közigazgatás, közmenedzsment, public policy és az érdekképviselet. Magyar és angol nyelven oktat tárgyakat a közigazgatás, a public affairs, a CSR, lobbizás és public policy témaköreiben. Publikációi a közigazgatás és politika viszonyáról, a közszolgálati rendszerekről, a közpolitikai kommunikációról és hálózatokról jelentek meg itthon és külföldön.

Dr. Tibor JELEN is a professor at Corvinus University of Budapest, candidate of economics, member of the public body of the Hungarian Academy of Sciences, of the Committee of Economic Sciences. His main field of research is corporate planning and related aspects of general, strategic and project management.
He has been a lecturer at the Corvinus University since 1986 and became the Head of Strategy and Project Management Department of the University in 2016.

The Strategy and Project Management Department provides education in all theoretical and practical issues of corporate strategy and project management, covering fundamental areas of strategic and project management, that are necessary for the rational and successful operation of enterprises in the long term.

The Department's educational portfolio consist of subjects of business strategy development, tactical and business planning (Strategic Management, Strategy and Business Planning), courses covering enterprise innovation activities (Entrepreneurial Innovation, Innovation Methodology), and subjects covering the entire project management life cycle (Organizational Project Management, Project Portfolio Management, Managing Individual Projects).
The Department participates in education on master and post gradual level. Strategic and innovation courses of Corvinus Business Development MA, one of the most popular MA specialities of Hungary are held by the Department as well.

Dr. JELEN Tibor a Budapesti Corvinus Egyetem docense, a közgazdaságtudomány kandidátusa, a Magyar Tudományos Akadémia köztestületi tagja, a Gazdálkodástudományi Bizottság keretei között. Fő kutatási területe a vállalati tervezés, illetve annak szemszögéből az általános, a stratégiai és a projektmenedzsment kapcsolt aspektusai. 1986 óta a Corvinus Egyetem oktatója, 2016-tól a Stratégiai és Projektvezetés tanszék vezetője.
Az általa vezetett tanszék a vállalkozások hosszú távon sikeres és racionális működtetésének alapvető és meghatározó fejlesztési területeinek elméleti és gyakorlati kérdésköreivel foglakozik.

Oktatási portfolióját képezik a vállalkozások stratégiaalkotásának, taktikai és üzleti tervezésének tárgyai (Stratégiai menedzsment, Stratégia és üzleti tervezés), a vállalkozások innovációs tevékenységeinek ismereteit lefedő tárgyak (Vállalkozás innováció, Innováció-módszertan), valamint a projektvezetés teljes keresztmetszetét leképező tárgyak (Egyedi projektek vezetése, Szervezeti projektvezetés, Projektportfolió menedzsment).

Drew ALGASE

Greetings from SAVE International

Greetings from SAVE International

Drew Algase, CVS-Life, FSAVE

Vice President – Global Affairs

The 6th SAVE-EUROPE Conference
19th - 20th April 2018, Budapest- Hungary

1

SAVE International

- SAVE International (SAVE) is the premier international professional society devoted to advancing and promoting the Value Methodology (VM)
- SAVE provides its worldwide membership with education, training, publications, promotional tools, certification, networking and recognition

The 6th SAVE-EUROPE Conference on 19th-20th April 2018, Budapest - Hungary

2

SAVE International - Membership

- Membership
  - Approximately 1,500+
    - US – located in 40+ states
    - International – located in 55+ countries
- Certification
  - 575+ CVS in 15 countries worldwide
  - 430 CVS-Life in 15+ countries worldwide
  - 3,000+ AVS/VMA in 50+ countries worldwide

2018 Value Summit

VALUE SUMMIT 2018
AUSTIN, TX ★ JUNE 9-12
SHERATON AUSTIN HOTEL AT THE CAPITOL

Thank you for your attention!

Presenter: Drew Algase, CVS-Life, FSAVE

E-mail: info@value-eng.org

Manfred NINAUS

The European Governing Board of the Value Management Training & Certification System, 2018

Value For Europe

EGB

The European Governing Board of the Value Management Training & Certification System

Value for Europe
European Governing Board
Value Management Training & Certification

April 2018

Value Management
Training & Certification

The EGB is the European non-profit association for the Management of Training and Certification in Value Management

History

- Origin: SPRINT Program of the European Union 1989-93 (Strategic PRogram for INnovation and Technology Transfer) to enhance the European infrastructure for innovation through transnational networks. VM Handbook published in 1995
- EN 12973 published 1999 in English, 2000 in German. Foundation of the EGB as an informal committee in June 2000
- Formal registration of the EGB as an organization according to the French law in June 2004 in Paris. Reason: Closeness to AFNOR (Association française de normalisation) and CEN (Comité Européen de Normalisation)

Objectives

- Common European Value Management Standard
- Common European formation and certification system, its supervision, quality monitoring, development, deployment in Europe
- Representation of European countries in global VM Topics

Latest works

- Finalizing the revision of "Value for Europe". Integration of the executed changes since 2000. Simplification of systems and adaptation of requirements.
- Promotion of the European Training & Certification System, acquisition of new EU countries
- Major input into the task forces of CEN TC279:
  1. Revision of EN 12973 with the target to create an ISO-Standard
  2. Update of EN 1325 – Value Management Terms – ready for publication
  3. New standard EN 16271 for the method Functional Performance Specification (FPS) - published

2

The EGB consists of 10 countries with status “Full member” and one country with status “Observer”

Status October 2013

Austria
FM 2000 (6)*

United Kingdom
FM 2000 (10)*

Belgium
FM 2000 (5)*

Spain
FM 2000 (8)*

Value for Europe
European Governing Board
Value Management Training & Certification

France
FM 2000 (10)*

Portugal
FM 2000 (6)*

Germany
FM 2000 (10)*

Norway
Observer

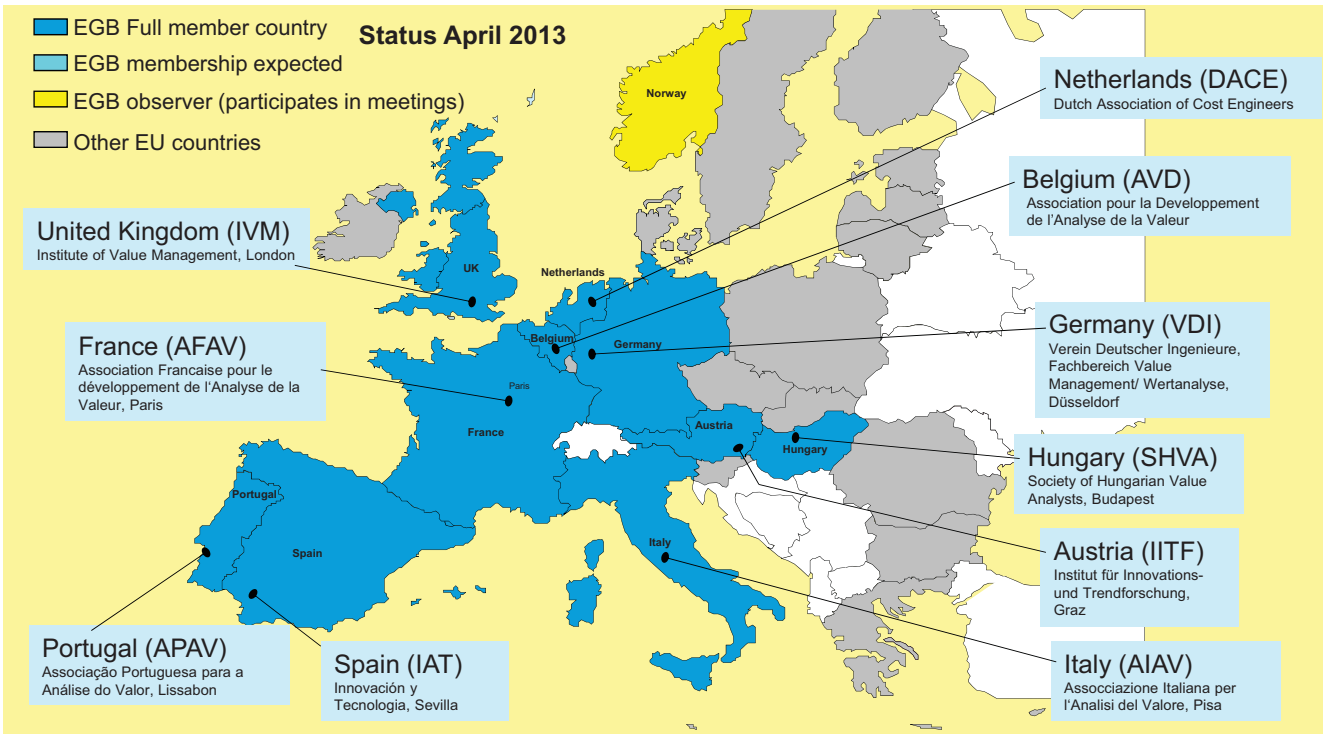
The Netherlands
2004 (6)*

Italy
FM 2000 (8)*

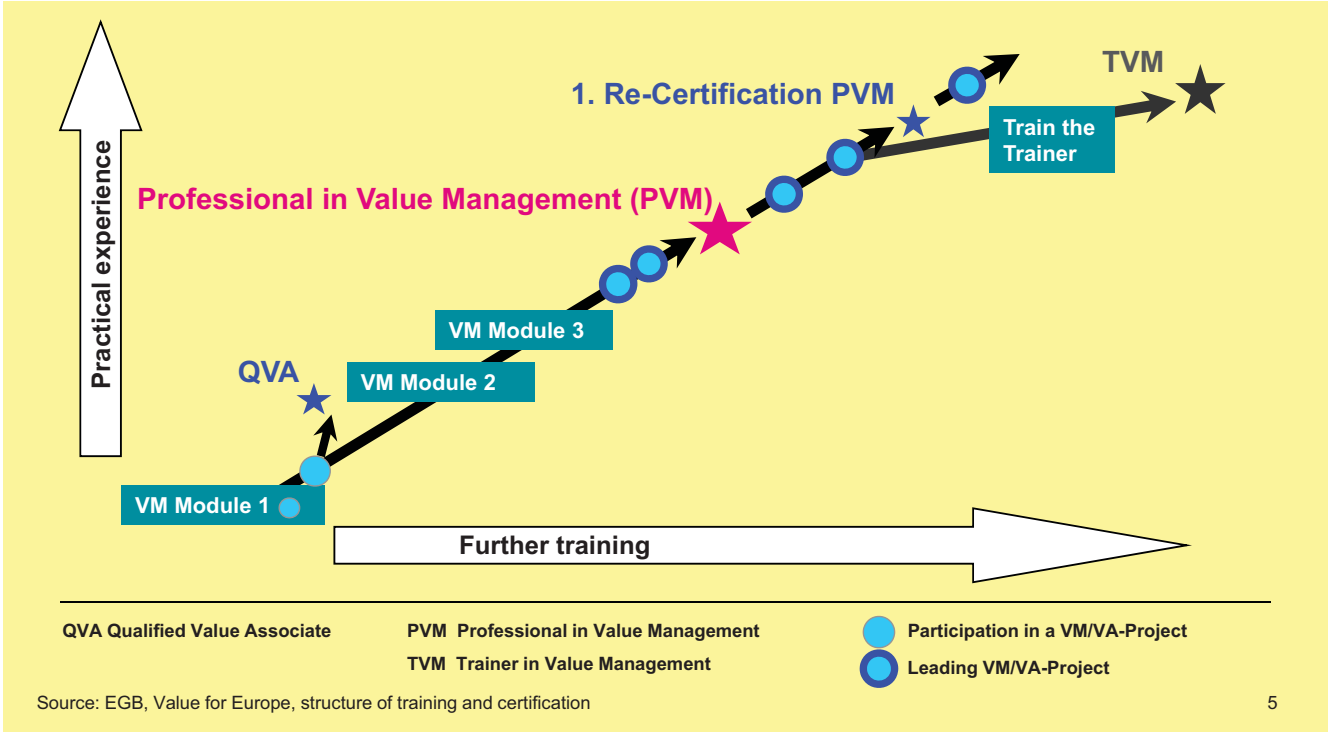
Hungary
2011 (6)*

FM Founding member, ( )* Weighting of voting rights of EGB member based on CEN

The national certification bodies for VM are mainly located in the Value Analysis organizations of the EGB member countries

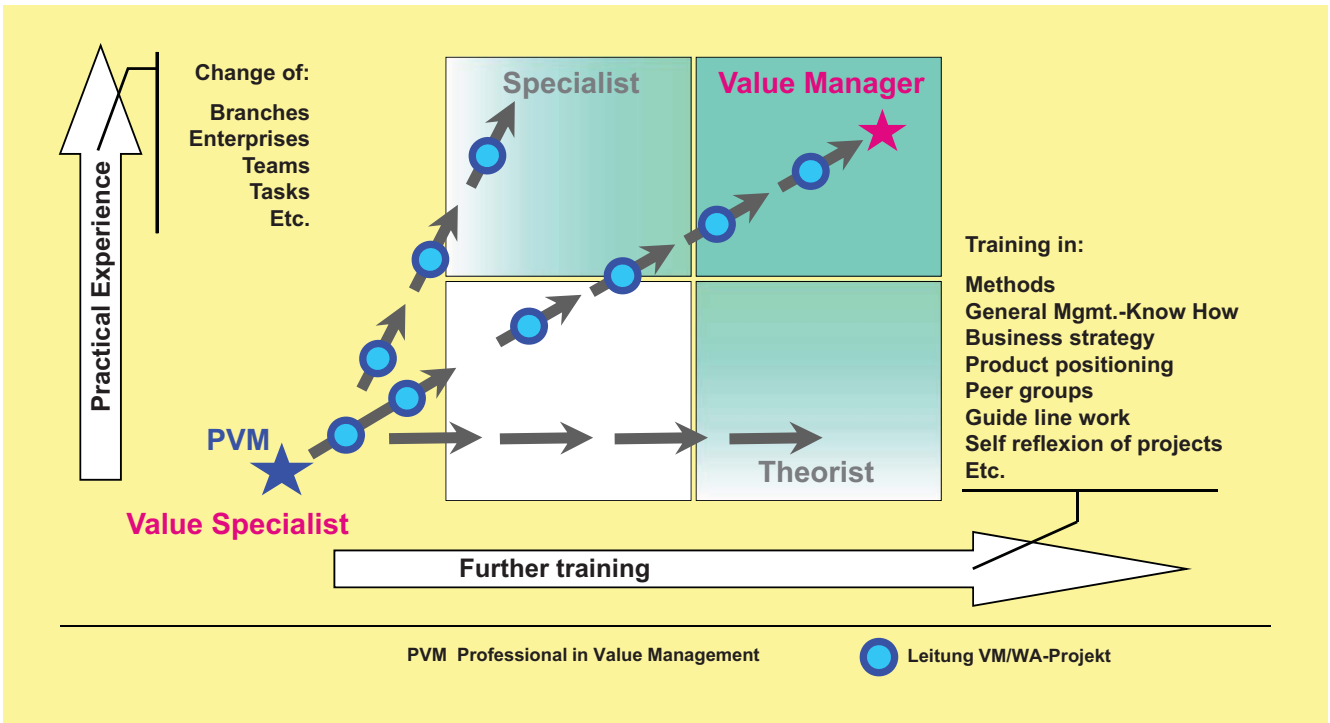


A European training & certification system for Value Managers does exist – VM experts are available in many member countries



Source: EGB, Value for Europe, structure of training and certification

You can become a Value Specialist by attending training modules and facilitating projects. However, you have to develop yourself to become a Value Manager



Bruce LENZER

THE LAWRENCE D. MILES VALUE FOUNDATION

THE LAWRENCE D. MILES VALUE FOUNDATION

THE LAWRENCE D. MILES VALUE FOUNDATION

The L.D. Miles Value Foundation (MVF) formed in 1977 to:

Perpetuate the Lawrence D. Miles Value Methodology by promoting and funding the development of educational programs, new applications, and a research library for the study of the Value Methodology.

THE LAWRENCE D. MILES VALUE FOUNDATION

FOUNDATION OBJECTIVES:

- *To advance the state-of-the-art and application of the Value Methodology through planning, research, and education.*
- *To plan, develop, and implement strategies for the introduction of the Value Methodology into new areas of business, commerce, and government.*
- *To promote the scientific education of college or university students in the fields of value engineering, cost control, and life cycle costing.*
- *To establish a constituency of individuals concerned with improving the value of goods and services for consumers through research, development, and demonstration of value improvements.*
- *To promote the general public awareness of the application of the Value Methodology through MVF supported activities such as: publications, library centers, technology exchange, conferences, and studies.*

THE ORGANIZATION

The MVF is a nonprofit organization incorporated in the District of Columbia. It is managed by a Board of Directors (who receive no monetary compensation) that meets semi-annually to:

- Establish, implement, and monitor goals for the Foundation
- Manage the finances of the Foundation
- Award scholarships and grants
- Establishment of the Miles Value Institute

CONTRIBUTIONS

- **USA - IRS Code 501(c)(3)**
  - *Tax deductible non-profit foundation*
- **Continuous proactive donation solicitation program to fund these MVF initiatives:**
  - *Education Fund*
  - *New Application Fund*
  - *Value Institute Fund*
  - *General Operating Fund*

SAVE International® & MVF

- **SAVE International®:**
  - **USA - IRS Code 501(c)(6)**
  - **Professional Organization exempt from USA Federal Tax**
  - **Income is from memberships, conferences, certifications, and other sources, NOT donations.**
  - **Focuses on education of professionals for Certification**

SAVE International® & MVF

- **MVF & SAVE International® Memorandum of Understanding**
  - *Cooperation to partner on joint projects.*
  - *MVF authored Function Analysis Guide for SAVE International®*
  - *ASTM International Standard Revision*
  - *Other projects on a case by case basis*

THE LAWRENCE D. MILES VALUE FOUNDATION

OFFICERS

Chairman……Drew Algase, CVS®-Life, FSAVE*

President……...Bruce Lenzer, CVS®-Life, FSAVE*

Executive Director…….. Jim Bolton, CVS®-Life, FSAVE*

VP Operations……..Ginger Adams, CVS®-Life, FSAVE*

VP Education…….. Steve Kirk, CVS®-Life, FSAVE*

Treasurer…….. James (Jim) Vickers*

* Also a Director

THE LAWRENCE D. MILES VALUE FOUNDATION

BOARD OF DIRECTORS

Ginger Adams, CVS®-Life, FSAVE, IAF, CPF, VP Operations
Drew Algase, CVS®, FSAVE - Chairman
Kathy Bethany, (President SAVE International)
Jim Bolton, CVS®-Life, FSAVE, PE, PVM, FINVEST Exec. Director
Tammy Dow, CVS®, PE
Richard Harrington, CVS®-Life, FSAVE
Dr. Steve Kirk, CVS®-Life, FSAVE, FAIA, LEED AP, VP Education
Bruce Lenzer, CVS®-Life, FSAVE, CQM/OE, CLA – President
Dr. Jay Mandelbaum
Javier Masini, CVS®
Don Parker, CVS®-Life, FSAVE
Rob Stewart, CVS®-Life, FSAVE, PMP
Istvan Tarjani, CMS, CVS®, PVM, TVM
Jim Vickers, Treasurer

THE LAWRENCE D. MILES VALUE FOUNDATION

STAFF

Sara Lenzer
- Secretary & MVF Office Manager

Terry Beuthling, CVS®, PE
- Miles Reference Center Library Liaison

Priority Goals and Projects

- Ongoing efforts to make VM a part of the required curriculum in education at the university level.
- Detailed Education Plan on our website

MVF ACCOMPLISHMENTS

- Review and select the MVF Paper of the Year
- Under the SAVE umbrella, completed the initiative to update the ASTM, International E1699 Value Analysis, Value Engineering Standard
- Assisted in the Federal Office of Management & Budget A-131 circular revision
- Creation and management of web site, www.valuefoundation.org

MVF ACCOMPLISHMENTS

- Authored the Goal/QPC Value Methodology Pocket Guide .
  - » *2nd edition to be released by SAVE International Conference, June 2018*
- Authored the Function Analysis Guide for SAVE International®, 2016
- Promote domestic and international awareness.
- Created and maintain the "Function iTool".
- Financially support the Miles Resource Library at the University of Wisconsin

SAVE / MVF INTERACTION

- MVF Board Members:
  - » Current SAVE President
  - » SAVE International® Past Presidents (4)
- Currently have two common board members not counting the SAVE President
- Contribute monthly articles to SAVE Value World
- Plan the MVF Forum at the annual SAVE conference
- Fund academic faculty and students to attend SAVE Conferences
- Promote SAVE International world-wide

Thank You

Lawrence D. Miles

Value Foundation

Perpetuating His Work

THE LAWRENCE D. MILES VALUE FOUNDATION

BUDAPEST
METROPOLITAN
UNIVERSITY

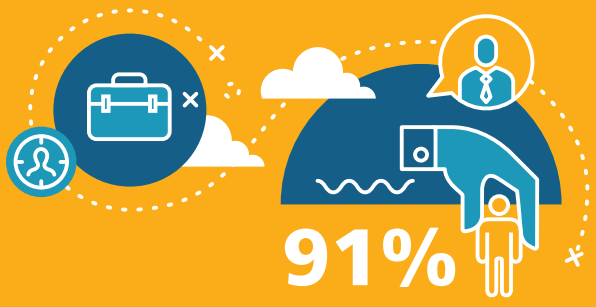
WHY METROPOLITAN?

- **33** BA/Bsc programs
- **16** MA/Msc programs
- **8** Vocational programs
- **22** Postgraduate programs

WE DEVELOP

CREATIVE THINKING

91% OF OUR FRESH-GRADUATED STUDENTS ARE EMPLOYED **WITHIN 3 MONTHS**



OPPORTUNITIES

- **16 DIFFERENT SCHOLARSHIPS**
- **COLORFUL STUDENT LIFE**
- **METROPOLITAN CREATIVE PROGRAM:** supporting creative, community ideas
- **METROPOLITAN STARTUP PROGRAM:** awarding innovative business projects
- **GOOD TO STUDY HERE:** 800 PCs and Macs, workshops, studios, specialized art classrooms, multimedia libraries, 3D studio

DO NOT BE AFRAID
– a math course can look like this, too.

CHOOSE FROM
12 DIFFERENT COURSES

Language classes are an integral part of the curriculum in each degree course

INTERNATIONAL
SCHOLARSHIPS

5 CONTINENTS

180 PARTNER UNIVERSITIES

UNIQUE TRAINING SYSTEM

BECOME
part of our international team!

BUDAPEST
METROPOLITAN
UNIVERSITY

PREPARATORY PROGRAMS

- Foundation Semester for Art Programs
- Intensive English Language Preparatory Program
- Professional Preparatory Program for Business

BACHELOR PROGRAMS

- Animation
- Business Administration and Management
- Commerce and Marketing
- Communication and Media Science
- Environmental Design
- Finance and Accounting
- Graphic Design
- International Business Economics
- International Relations
- Media Design
- Photography
- Tourism and Catering
- Visual Representation

MASTER PROGRAMS

- Business Development
- Communication and Media Studies
- Graphic Design
- Management and Leadership
- Master of Business Administration
- Tourism Management

INTERNATIONAL INFO:
METUBUDAPEST.HU

HUNGARIAN INFO:
METU.HU/FELVETELI

BUDAPEST
METROPOLITAN
UNIVERSITY

TEDx BudapestMetropolitanUniversity

x = independently organized TED event

VISIT: TEDX.METU.HU