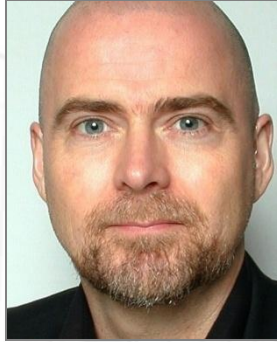
A faint, light-colored background image of a suspension bridge, likely the Øresund Bridge, spans the width of the slide. The bridge's towers and cables are visible, creating a sense of depth and structure.

# **60 ECTS DIPLOMA EDUCATION IN “HEALTH, SAFETY, ENVIRONMENT AND ENERGY”**



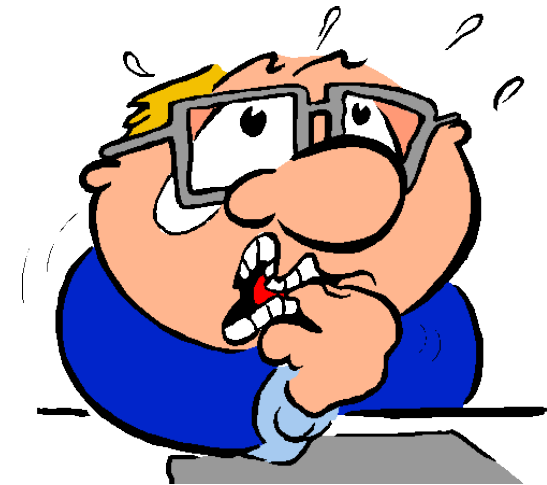
Palle Grøndahl

Centre of Asset Maintenance Management

pg@fms.dk

- Marine engineer
- Senior lecturer and head of Centre of Asset Maintenance Management
- Certified as European Expert in Maintenance Management
- Diploma in Maintenance Management
- Chairman of the education and informatics committee under the Danish Maintenance Society
- Member of the education and training committee under EFNMS

- Companies meet:
  - A more aggressive market
    - Climate focus
    - CSR – corporate social responsibility
  - Increasing demands regarding legislation and standards
    - Energy savings
    - Use of sustainable energy
    - CO<sub>2</sub>-quota system
    - Energy saving design
    - Energy saving in buildings



- Working with energy optimization and other environmental issues

(Often) leads to 

- Higher production integrity
- Energy savings
- Higher production rate
- Better welfare

# The HSEE-employee

CDV

Center for Drift og Vedligehold



Fredericia Maskinmesterskole

Quality assurance

Legislation

Environment

Organization

Maintenance

Economics

Management



- Technical Diploma in Energy and Environment
  - First lay-out:  
Copenhagen University College of Engineering – 2002
  - Integrated Environmental Management, Energy and Process Plants, Project Planning, Final thesis and two optional modules
  - Focus on the use of tools

**No courses sold**

# What is needed?

- An education which focus on the management of energy, environmental and safety matters.



# The challenge

CDV

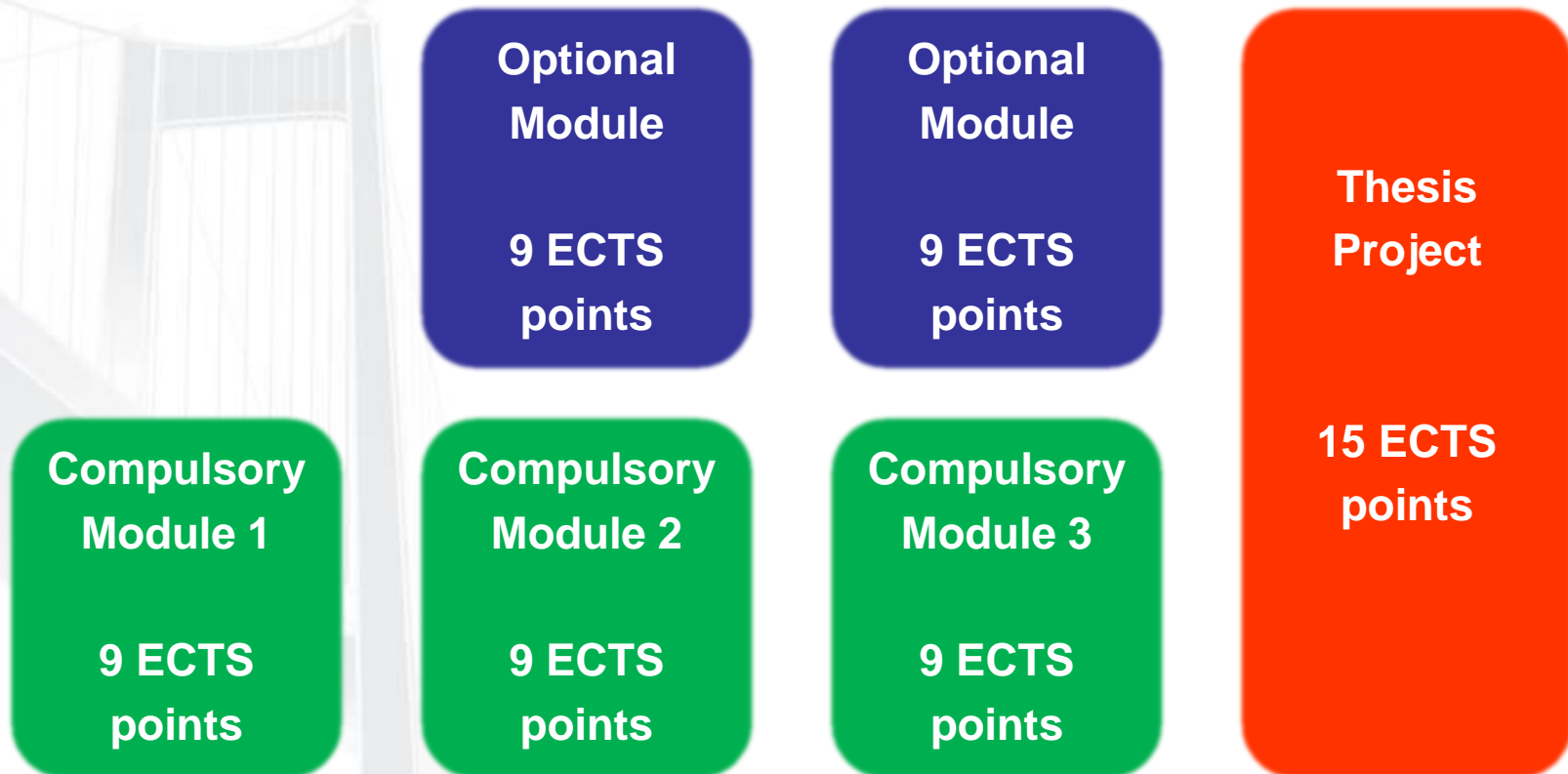
Center for Drift og Vedligehold



Fredericia Maskinmesterskole

- Centre of Asset Maintenance Management and VIA University College applied in co-operation for a permission to offer the Technical Diploma in Energy and Environment  
... and got it.

# The diploma structure



- The courses are mainly structured as a problem oriented – project organized studies
- Working with energy and environment management for practical use
- Emphasis is placed on the analysis, understanding and strategic control of the environment/energy areas in an organization
- Skills in leadership, personal communication and team relationships

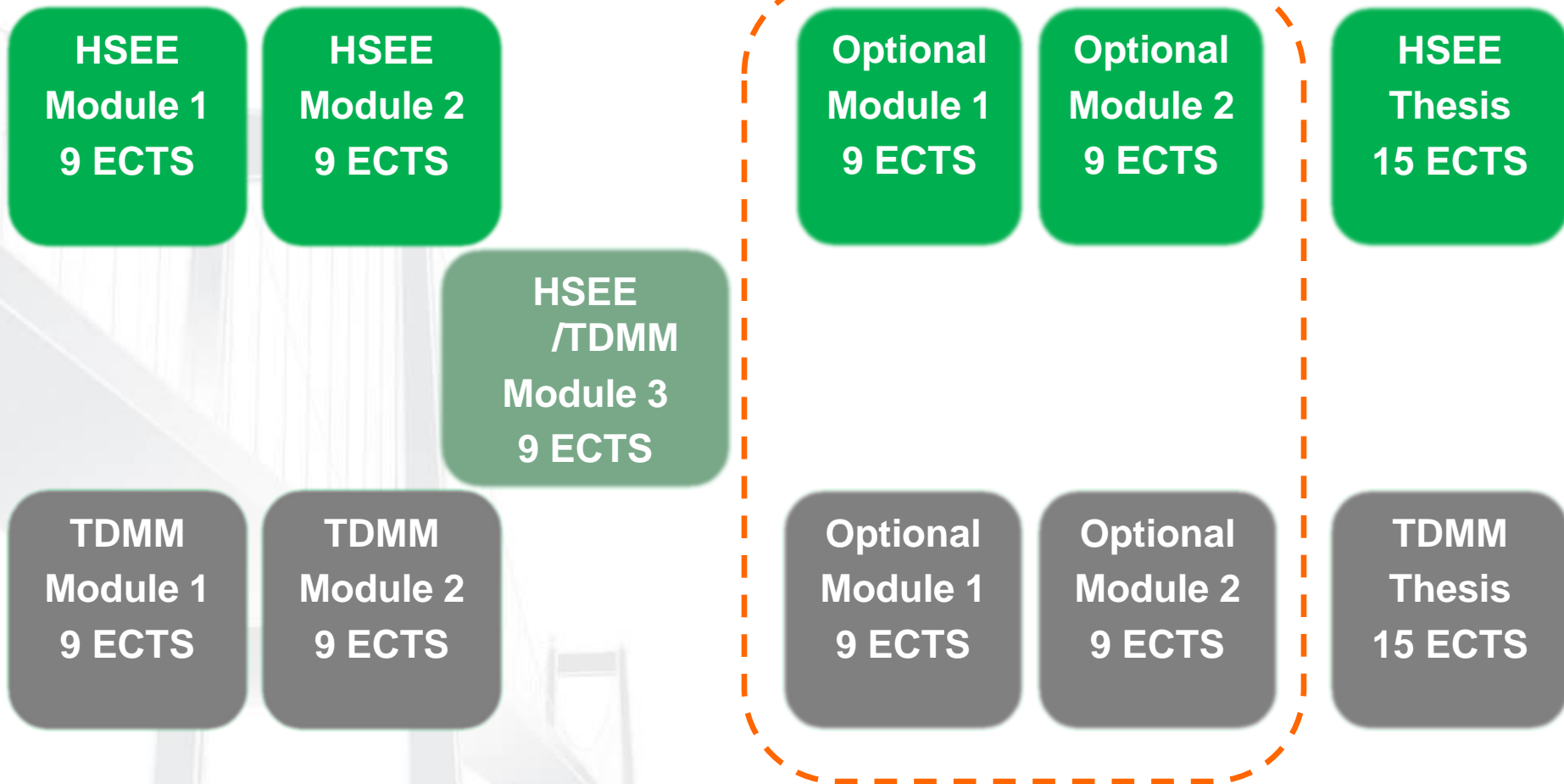
- Comprehension of the Danish environment and energy politics
- Comprehension of the political tools
- Comprehension of the Danish energy and environment arrangements such as for the areas of ventilation, boilers, energy marking, mapping, energy optimization and public contributions
- Comprehension of how the Life Cycle Costs and Life Cycle Assessment processes relates to energy consumption and impact on the environment
- The student can employ the Danish environment legislation (both internal and external environment) and management systems for energy (DS 2403) and environment (ISO 14001)

- Comprehension of the Danish occupational health and safety politics
- Comprehension of how health and safety can be increased by working with screening for safety, acceptance criteria, human influence on safety and safety barriers. E.g. through the recommendations from the European Agency for Safety and Health at Work
- Comprehension of health and safety arrangements.
- Can employ the Danish occupational environment legislation
- Can employ management systems such as OHSAS 18001, safety management, risk assessments and risk management

- Knowledge about theories about the fundamental position of the manager
- Understand the importance of efficient and targeted coaching
- Improved self-understanding and understanding of the importance of reflection
- Focus on competence in communication as an active tool
- Foundations for his/her personal competence in connection with coaching - among others his/her motivation and view of other people
- Connection between theory and the everyday life of the student is established so that the abilities acquired can be used there

- Project Management – methods and tools
- Personal development of the manager
- Management and Coaching
- Reliability, techniques and methods in maintenance
- Management, organization, economy and information in maintenance

# The structure



HSEE – Health, Safety, Environment and Energy

TDMM – Technical Diploma in Maintenance Management

## The training bodies



## The students



## The companies

