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WELCOME!
Quality of Working Life

TALLINN UNIVERSITY OF TECHNOLOGY

Professor Mare Teichmann
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School of Management, University of Silesia, Poland

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Competence

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The term competence was known in Europe as a 'learned capacity to perform' *(Roe, 2002)*

There are two main approaches:
Any characteristics relating to superior performance

- Competency/ce (~ US) Learned capacity to perform
- Competence/cy (~ EU)

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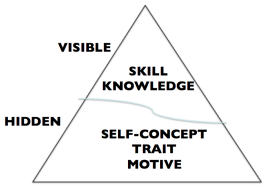
Competency *(Spencer & Spencer, 1993)*

….. "an underlying characteristic of an individual that is causally related with criterion- referenced effective and/or superior performance in a iob or situation"



Iceberg Model *(modified by L.M. Spencer, & S.M. Spencer, 1993)*

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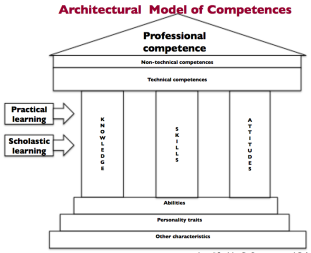
Competence *(Roe, 2002)*

Competence as "a learned capacity of an individual to adequately perform a task, duty or role " *(Roe, 2002)*

Architectural Model of Competences



(modified by D. Bartram and R.A. Roe, 2005)

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HRM Competences

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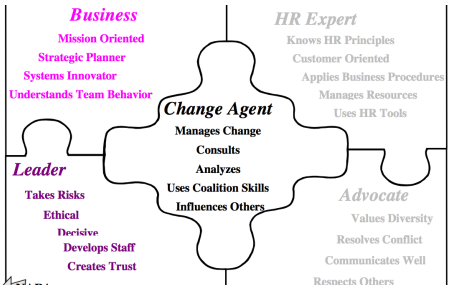
HRM Competences



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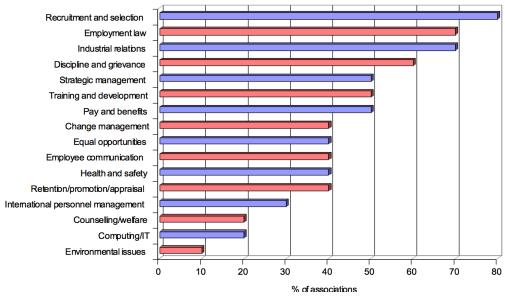
HR Competences

(World Federation of Personnel Management Associations, 2000)



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HR Competences

(World Federation of Personnel Management Associations, 2000)

I. Personal	II. Organisational	III. Managerial	IV. Functional
I.1 Communication	II.1 Knowledge of the environment	III.1 Management of self	IV.1 HR planning and staffing
I.2 Decision making and problem solving	II.2 Knowledge of the industry/sector	III.2 Management of people	IV.2 Performance management and development
I.3 Business acumen	II.3 Knowledge of the organisation	III.3 Management of resources	IV.3 Employee and labour relations
I.4 Credibility and professionalism	II.4 Impact assessment	III.4 Management of operations, including outsourcing	IV.4 Compensation and benefits
I.5 Leadership	II.5 The HR department as a part of the organisation	III.5 Management of information	IV.5 Health, safety, welfare and security
I.6 Relationship management		III.6 Change management	IV.6 Systems and information management
I.7 Adaptability			IV.7 Organisational design and development

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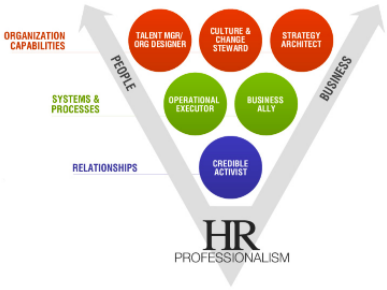
HRM Competences *(Michigan University)*



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HRM Competences *(Michigan University)*

- **Credible Activist**. The HR professional is both credible (respected, admired, listened to) and active (offers a point of view, takes a position, challenges assumptions). Some have called this "HR with an attitude." HR professionals who are credible but not activists are admired but do not have much impact. Those who are activists but not credible may have ideas but will not be listened to.

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HRM Competences *(Michigan University)*

- **Culture and Change Steward.** The HR profession appreciates, articulates, and helps shape a company's culture. Culture is a pattern of activities more than a single event. Ideally, this culture starts with clarity around external customer expectations (firm identity or brand) and then translates these expectations into internal employee and organization behaviors. As stewards of culture, HR professionals respect the past culture and also can help to shape a new culture. Additionally, successful HR professionals facilitate changes in two ways. First, they help make culture happen. Second, they develop disciplines to make changes happen throughout the organization. They help turn what is known into what is done.

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HRM Competences *(Michigan University)*

- **Talent Manager / Organizational Designer.** The HR professional masters theory, research, and practice in both talent management and organization design. Talent management focuses on competency requirements and how individuals enter and move up, across, or out of the organization. Organization design focuses on how a company embeds capability (for example, collaboration) into the structure, processes, and policies that shape how an organization works. HR is not just about talent or organization, but also about the two of them together. Good talent without a supporting organization will not be sustained, and a good organization will not deliver results without talented individuals with the right competencies in critical roles.

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HRM Competences *(Michigan University)*

- **Strategy Architect.** The HR professional has a vision for how the organization can win in the future and plays an active part in the establishment of the overall strategy to deliver on this vision. This means recognizing business trends and their impact on the business, forecasting potential obstacles to success, and facilitating the process of gaining strategic clarity. The HR professional also contributes to the building of the overall strategy by linking the internal organization to the external customer expectations. This linkage helps make customer-driven business strategies real to the employees of the company.

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HRM Competences *(Michigan University)*

- **Operational Executor.** The HR professional executes the operational aspects of managing people and organizations. Policies need to be drafted, adapted, and implemented. Employees also have many administrative needs (e.g., to be paid, relocated, hired, and trained). HR professionals ensure that these basic needs are efficiently dealt with through technology, shared services, and/or outsourcing. This operational work of HR ensures credibility if executed flawlessly and grounded in the consistent application of policies.

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HRM Competences *(Michigan University)*

- **Business Ally.** Businesses succeed by setting goals and objectives that respond to external opportunity and threats. HR professionals contribute to the success of the business by knowing the social context or setting in which their business operates. They also know how the business makes money, which we call the value chain of the business (who customers are, why they buy the company's products or services)Z. Finally, they have a good understanding of the parts of the business (finance, marketing, research and development, engineering), what they must accomplish, and how they work together, so that they can help the business organize to make money.

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Challenges for the HR in global companies *(Fromholtz-Mäki , 2005)*

Six key contextual factors, which describe the current business environment and challenges for all global companies

1. **Global economy** – organizations must acquire global awareness and leverage. Global awareness and sensitivity will enable firms to adapt products to local conditions and culture
2. **Technology** – fueled by digitalized hardware and software, will make the world faster and smaller. With technology, an office will be location independent but more defined by connection and contact

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Challenges for the HR in global companies *(Fromholtz-Mäki , 2005)*

3. Speed – will be the major determination of success. Product life cycles will shorten, and first-mover advantages will become even more important. Speed will mean change towards risk-taking and innovation.

4. Customization – consumer customization will be target for market research. Employee customization will also occur to attract and keep top talent. Customized deals will require more flexibility than rules; service more than systems and commitment more than consistency.

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Challenges for the HR in global companies *(Fromholtz-Mäki , 2005)*

5. People -Intellectual capital and knowledge of people – firms that access, leverage and create knowledge will win. Organizations must become thought leaders and set the rules of the game rather than be constrained by being strategic followers.

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Challenges for the HR in global companies *(Fromholtz-Mäki , 2005)*

6. Profitable growth – firms that do not meet financial goals will fail. Financial success will become not just reducing costs but creating growth. Cost-reduction pressures will continue as evidenced in attention to improve processes, avoiding redundancies and higher productivity. An agenda for growth will continue through attention to global distribution (selling product and services to new markets) customer intimacy (selling more to existing customers); and innovation (creating new products and services). Leaders of the future will have a clear strategy for growth and costs simultaneously.

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Challenges for the HR in global companies *(Fromholtz-Mäki , 2005)*

a) Determining the firm's purpose or vision
b) Exploiting and maintaining core competences
c) Developing human capital
d) Sustaining an effective organizational culture
e) Emphasizing ethical practices
f) Establishing balanced organizational controls

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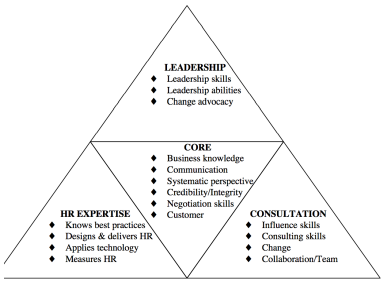
HRM Competences



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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Study background

- ✓ Well-known publications of human resource management (HRM, such as *Human Resource Management* and *Human Resource Magazine*) act as a bridge between knowledge and practice
- ✓ These journals attempt to intermediate, reflect, and rephrase major academic positions, based on empirical studies and scientific fact, for those working in the personnel field Unfortunately, these efforts sometimes end up looking like a fun-house mirror rather than a true reflection of the evidence that they are trying to represent

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Study background

The mentioned publications and personnel management training textbooks and handbooks fail to address some of the academic knowledge that is vital to HR work

Analysing the content of articles published over five years, researchers in the USA *(Rynes, Giluk, Brown, 2007)* reached the conclusion that topics addressed in publications and books that were geared towards practitioners addressed far less academic studies and literature

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Study of Estonian HR professionals

Sample

1) a group of HR professionals (58 females, five males, with an average age 32.4 years)
2) a control group of professionals from a variety of different occupations (such as engineers, book-keepers, lawyers, civil servants, and teachers (56 females, eight males with an average age 31.9 years)

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Study of Estonian HR professionals

Research method

We interviewed 63 HR professionals and the control group that consists of 64 non-HR professionals from different occupations

We proposed the same eight statements to both samples and they were asked if they agreed or disagreed with each statement e.g., "Money does not motivate an employee to boost their productivity"

These statements were taken from the misunderstandings of research evidence ("myths") that had vividly occurred in the first part of interview study

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Results

Table 1. Personnel professionals' and non-personnel professionals' judgements

	Sample 1	HR group	Sample 2	Non-HR group
Statements	**Agree (%)**	**Disagree (%)**	**Agree (%)**	**Disagree (%)**
1. Money does not motivate an employee to boost their productivity.	33.4	66.6	15*	85*
2. It's not possible to use a test to gauge an employee's integrity in order to help decide whether to hire him or not.	63.9	36.1	65	35
3. Work stress is the primary reason for employees falling ill.	47.2	52.8	75*	25*
4. Including employees in the decision-making process is vital to improving work productivity.	83.3	16.7	95	5
5. Satisfaction with one's work guarantees greater productivity and more loyalty to an organisation.	94.4	5.6	85	15
6. Charismatic leaders are not as good.	5.6	94.4	0	100
7. Labour unions conduct negotiations about wages instead of employees.	13.9	86.1	15	85
8. It is not possible to account and to prove the profitability of personnel selection.	33.3	66.7	35	65

Statistically different from the HR group (Sample 1) at $p<0.05$

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Results showed that there are a number of embedded attitudes (myths) that are not evidence-based. Four statements were judged, by the majority in both samples, adequately:

- ✓ 1. Money does not motivate an employee to boost productivity (66.6% disagree HR; 85% disagree non-HR);
- ✓ 6. Charismatic leaders are not as good (94.4% disagree HR; 100% disagree non-HR);
- ✓ 7. Labour unions conduct negotiations about wages instead of employees (86.1% disagree HR; 85% disagree non-HR);
- ✓ 8. It is not possible to account and to prove the profitability of personnel selection (66.7% HR disagree; 65% disagree non-HR).

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

In contrast there were three statements in which majority from both samples judged inadequately:

- ✓ 2. It's not possible to use a test to gauge an employee's integrity in order to help decide whether to hire him or not (36.1% disagree HR: 35% disagree non-HR);
- ✓ 4. Including employees in the decision-making process is vital to improving work productivity (16.7% disagree HR; 5% disagree non-HR);
- ✓ 5. Satisfaction with one's work guarantees greater productivity and more loyalty to an organisation (5.6% disagree HR; 15% disagree non-HR).

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

One statement did show significant difference ($p<0.05$) between the judgments of HR and non-HR samples:

- ✓ 3. Work stress is the primary reason for employees falling ill; (47.2% HR; 75% agree non-HR)

The prevailing view among non-personnel professionals was (incorrect) that work stress was the primary reason for employees falling ill.

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Conclusion

Based on results of the current study, four statements were judged in both samples adequately, and there were three statements in which both samples judged inadequately. One statement did show significant difference ($p<0.05$) between the judgments of HR and non-HR samples i.e. "Work stress is the primary reason for employees falling ill"

We have to conclude that personnel professionals' knowledge has not much progressed far as the 37.5% of judgments personnel specialists are making are not supported by evidence. Most intriguing was the finding that there was not much difference between HR and non-HR samples by their level of knowledge.

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Myth 1 – Money does not motivate an employee to boost their productivity

Myth 2 – It's not possible to use a test to gauge an employee's integrity in order to help decide whether to hire him or not

Myth 3 – Work stress is the primary reason for employees falling ill

Myth 4 – Including employees in the decision-making process is vital to improving work productivity

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HRM Competences & Myths among Personnel (HR) Professionals *(Teichmann, Randmann, 2013)*

Myth 5 – Satisfaction with one's work guarantees greater productivity and more loyalty to an organisation

Myth 6 – Charismatic leaders are not as good

Myth 7 – Labour unions conduct negotiations about wages instead of employees

Myth 8 – It is not possible to account and to prove the profitability of personnel selection

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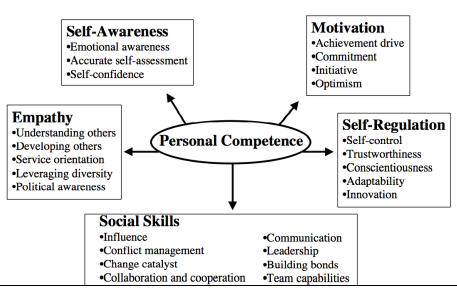
HRM Emotional Competence Framework *(adapted by Goleman)*



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Managers' Competences

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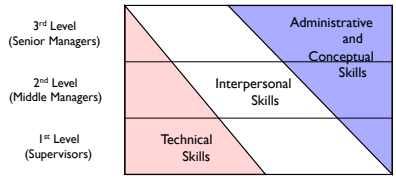
Management Levels & Skills

(Bozewicz, 2007)



As organizations evolve to reflect their business environment -- the skills mix is also changing for the organization's managers

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Managers' Competences *(Employee Development Systems, Inc.)*

- ✓ Appraising People and Performance
- ✓ Disciplining and Counseling
- ✓ Employees Listening and Organizing
- ✓ Setting Goals and Standards
- ✓ Thinking Clearly and Analytically
- ✓ Giving Clear Information to Employees
- ✓ Getting Unbiased Information
- ✓ Identifying and Solving Problems
- ✓ Making Decisions and Weighing Risks
- ✓ Planning and Scheduling
- ✓ Work Training, Coaching, and Delegating
- ✓ Time Management and Prioritizing

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Managerial competence

(An Organizational Development Approach, Bozewicz, 2007)

Team Leader
- Project Leader
- POA&Ms
- Project Tracking
- Resource Expenditures
- Customer Orientation
- Quality Focus
- Consensus
- Myers-Briggs Analysis

Supervisors
- Situational Leadership
- Demonstrate Core Values
- Managing Diverse Workforce
- Coaching/Counseling
- Conflict Management
- Change Management
- Team Building
- Influencing/Negotiating
- Human Resources Mgmt
- Branch Head (Middle Mgr)
- Asst. Program Mgr

Managers
- Innovative Thinking
- Program Development Planning & Evaluation
- Model/Reinforce Core Values
- Resource Management
- Technology Management
- Process Oversight Management
- Mentoring
- Presentation/ Marketing Skills
- Risk Management
- Division Head (Senior Mgr)
- Program Manager

Executives
- Strategic Vision
- External Awareness
- Organizational Representation & Liaison
- Directorate Head (Senior Mgr)

Knowledge and Skills

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First Things First: "Manage" Yourself

(Bozewicz, 2007)

- ✓ Know Your Personality
- ✓ Personality/Behavior Tests
- ✓ Work Within Yourself
- ✓ Know Your Constraints and Limitations
- ✓ Don't Become Something You're Not!
- ✓ Take Care of Yourself Physically and Mentally
- ✓ "Management" Will Require Much of Your Energy
- ✓ Strive for Balance - Don't Become a Workaholic!

Manage Yourself before Managing Others

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"Extra-curricular" Preparation *(Bozewicz, 2007)*

Look for and take advantage of opportunities to get involved with corporate or organization-level teams/projects - get exposure at the corporate-level

There's more than just the focused technical area you work in!

Look at organization's internal website or other sources of corporate information, policies and strategic planning – "good stuff" from an organizational perspective – get familiar with how your organization does business (e.g., budget development, marketing, etc.) and strategic planning

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"Extra-curricular" Preparation *(Bozewicz, 2007)*

Professional Society involvement – good for exposure – become an "active" member not just an attendee – offers great early "management" opportunities

Make the investment in yourself (time and $$$) – not everything will be provided to you – you must take the initiative – treat yourself as a small business (YOU, Inc.)

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Key Focus Areas *(Bozewicz, 2007)*

Continuously improve your Communication skills – written and oral

New Focus Area: International Communications

Negotiating – key skill to your future success

❖Understand that there is a "political landscape"

Financial Management/Budget Development – general theory and your organization's accounting and budgeting practices

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Key Focus Areas *(Bozewicz, 2007)*

"Soft skills" will play a significant part in successfully transitioning from Engineer to Manager

A strong desire to want to continue to develop yourself AND more importantly a desire to develop others

Become a Decision Maker – Managers have to make the "Tough Choices"

Take Charge: Initiate development of your Personal Strategic Plan for You, Inc.!

Set an Active Course for Yourself…Don't Coast… If You're Coasting, You're Going Downhill!

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Engineers' Managerial Competences

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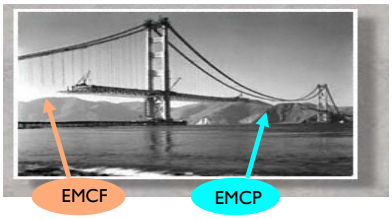
Certification: EMCI is a Tool to Measure Engineering Management Competency

Engineer → ? → Engineering Manager



EMCI: Engineering Management Certification International

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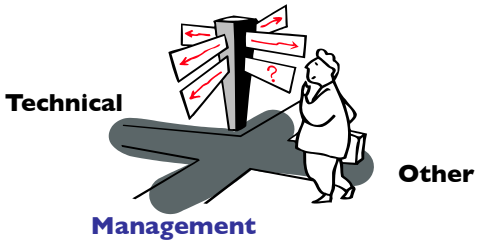
Engineers' Managerial Competences

(Bozewicz, 2007)

Which Career Path Should I Follow?



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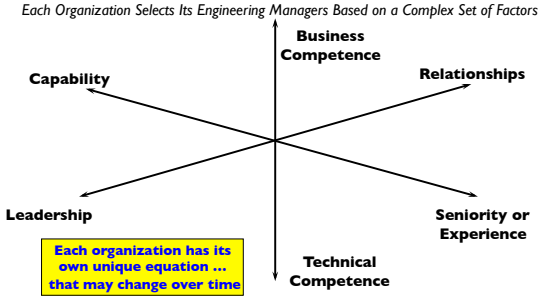
Engineers' Managerial Competences

(Bozewicz, 2007)

Each Organization Selects Its Engineering Managers Based on a Complex Set of Factors



Each organization has its own unique equation … that may change over time

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Engineers' Managerial Competences

(Bozewicz, 2007)

Challenges to Becoming a Successful Engineering Manager

- ✓ Technical Competence
- ✓ Communications
- ✓ Business Skills
- ✓ Management Skills
- ✓ Motivation
- ✓ Performance Evaluation
- ✓ People (or Interpersonal) Skills – A Special Challenge

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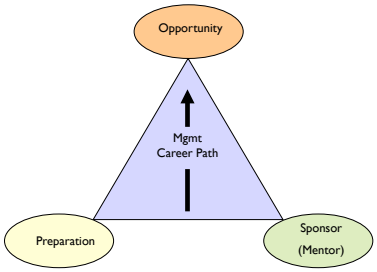

The secret of success is for a man to be ready for his opportunity when it comes.
-Benjamin Disreali, British Novelist and Debater (1804-1881)

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Engineers' non-technical competences

(Parts, Teichmann, 2013)

The changing nature of engineering work has placed unprecedented demands on engineers and fueled the concerns of engineers' educators. It is argued that engineering is no longer a matter of just engineering *(Ravesteijn, De Graaff, Kroesen, 2006)*

In recent years engineers' educators have accepted the challenge of teaching non-technical competences *(OECD, 2011;* UK-SPEC, 2011; *ABET, 2010; IE Aust, 1999)* and taking it so seriously that the Association of German Engineers (VDI) suggests that up to 20% of an engineering curriculum should be in non-technical fields such as language training, self-management, personality development, communication skills, project management, economics, and other related topics *(Hillmer, Fink, Foradori, Gall, Kilian, Sparer, 2007)*

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Engineers' non-technical competences

(Parts, Teichmann, 2013)

Study was based on data collected through a web-based survey

Altogether 4000 invitations to participate in the survey were sent to graduate engineering students in TUT and professional engineers

The sample consisted

N = 1011 young engineers (681 males and 322 females)

Average age: 28.11 years (SD=7.60)

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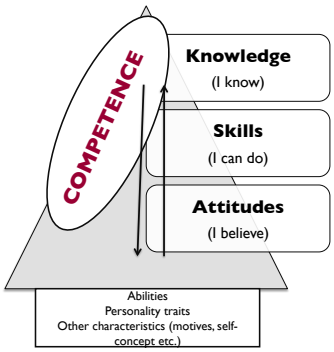
Engineers' non-technical competences

(Parts, Teichmann, 2013)

Research method: Web-based survey



Competences can also be compared to a pyramid made up of a person's opinions and values, skills and knowledge
That which we believe or we know is expressed through our actions
Our opinions and values affect our behaviours and actions, while the experiences we gain through our actions in turn help to shape our beliefs and values

Engineers' non-technical competences (Parts, Teichmann, 2013)

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Engineers' non-technical competences

(Parts, Teichmann, 2013)

Competences	Never do not use	Rarely Sometimes	Frequently Every day
Personal ethics	1%	11%	88%
Flexibility	1%	12%	87%
Learning	1%	14%	85%
Self-management	1%	17%	82%
Stress tolerance	1%	23%	76%
Relationships/ Cooperation	1%	25%	74%

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Engineers' non-technical competences

(Parts, Teichmann, 2013)

Communication	1%	26%	73%
Professional ethics	2%	26%	72%
Innovation/creativity	1%	31%	68%
Negotiations/ Conflict management	1%	36%	63%
Social ethics	4%	40%	56%
Project management	7%	41%	52%
Influence	3%	45%	52%
Engineer' work legal issues	6%	47%	47%

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Engineers' non-technical competences

(Parts, Teichmann, 2013)

Project management	7%	41%	52%
Influence	3%	45%	52%
Engineer' work legal issues	6%	47%	47%
Entrepreneurship	5%	51%	44%
Team management	15%	47%	38%
Organization/ Division management	17%	45%	38%
Intellectual property law	19%	52%	29%
Commercial law	26%	51%	23%

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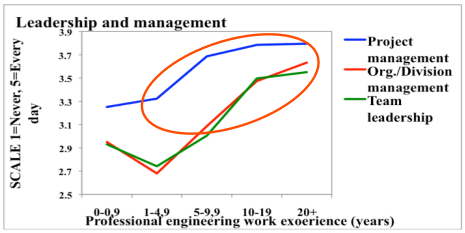
Engineers' managerial competences

(Parts, Teichmann, 2013)



Leadership, Management, Administrative Administrative Competences Regarding the Professional Engineering Work Experience

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Non-technical Competences for Engineers

(Parts, Teichmann, 2013)

1. The Professional ethics competence domain includes personal ethics, professional ethics, and social ethics competences
2. The Personal competence domain includes flexibility, stress tolerance and coping with stress, self-management, learning competences
3. The Interpersonal competence domain includes three competences, namely, communication, relationships/cooperation, negotiations/conflict management, influence/manipulation competences

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Non-technical Competences for Engineers

(Parts, Teichmann, 2013)

4. The Innovation and entrepreneurial competence domain includes two competences: innovativeness, creativity, and entrepreneurship competences
5. The Leadership, management and administrative competence domain includes three competences i.e. project management competences, organization or division management competences, and team leadership competences
6. The Law and legal system competence domain includes three competences, namely, intellectual property law, knowledge of engineers' work legal issues, commercial law competences

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Non-technical Competences for Engineers

(Parts, Teichmann, 2013)

Domains	1	2	3	4	5	6
1. Ethics	-					
2. Personal	.24	-				
3 Interpersonal	.34	.45	-			
4 Innovation	.19	.37	.40	-		
5 Leadership	.24	.31	.53	.47	-	
6 Law	.33	.20	.38	.42	.49	-

$p<0.001$

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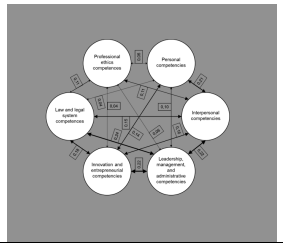
The Model of Non-technical Competences for Engineers (by using R^2) *(Parts, Teichmann, 2013)*

Thus, we interpret $R^2 < 0.09$ as referring to small effect, $R^2 = 0.1 - 0.23$ as referring to medium effect, and $R^2 > 0.24$ refers to big effect

Model of Non-technical Competences of Engineers (by using R^2)



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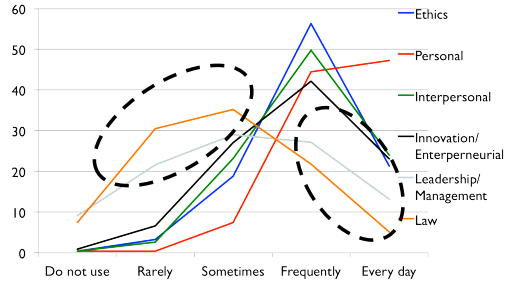
Engineers' non-technical competences

(Parts, Teichmann, 2013)



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Career Development

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Career describes an individuals' journey through learning, work and other aspects of life

Career is also frequently understood to relate only to the working aspects of an individuals life

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Career development (in organizational development)

- ✓ how individuals manage their careers within and between organizations
- ✓ how organizations structure the career progress of their members, it can also be tied into succession planning within most of the organizations

of life roles, values expression, and life-role self concepts."

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Career development (in personal development)

- ✓ ... the total constellation of psychological, sociological, educational, physical, economic, and chance factors that combine to influence the nature and significance of work in the total lifespan of any given individual.
- ✓ The evolution or development of a career - informed by

1) Experience within a specific field of interest (with career, job, or task specific skills as by-product)
2) Success at each stage of development
3) Educational attainment commensurate with each incremental stage
4) Communications
5) Understanding of career development as a navigable process *(Herr & Cramer,1996)*

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Career development (in personal development)

- ✓ ... the lifelong psychological and behavioral processes as well as contextual influences shaping one's career over the life span. As such, career development involves the person's creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self concepts *(Pope,2009)*

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Career Change

Changing occupation is an important aspect of career and career management

Over a lifetime, both the individual and the labour market will change; it is to be expected that many people will change occupations during their lives

Data collected by the U.S. Bureaur of Labor Statistics through the National Longitudinal Survey of Youth in 1979 showed that individuals between the ages of 18 and 38 will hold more than 10 jobs

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Reasons for career changing

Reasons	%
The downsizing or the restructuring of an organization	54%
New challenges or opportunities that arise	30%
Poor or ineffective leadership	25%
Having a poor relationship with a manager(s)	22%
For the improvement of work/life balance	21%
Contributions are not being recognized	21%
For better compensation and benefits	18%
For better alignment with personal and organizational values	17%
Personal strengths and capabilities are not a good fit with an organization	16%
The financial instability of an organization	13%
An organization relocated	12%

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Career Typology

Holland's theory is centred on the notion that most people fit into one of six personality types *(Gottfedson, Holland, 1996)*

- ✓ Realistic
- ✓ Investigative
- ✓ Artistic
- ✓ Social
- ✓ Enterprising
- ✓ Conventional

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Career Typology

Carl Jung's and Isabel Briggs Myers' typology: sixteen different types, based on four dimensions of personality

Extraversion/Introversion describes your approach to managing your energy level

Sensing/Intuition describes your style of thinking about facts and ideas

Thinking/Feeling describes your orientation to personal values

Judging/Perceiving describes your approach to goals and time management

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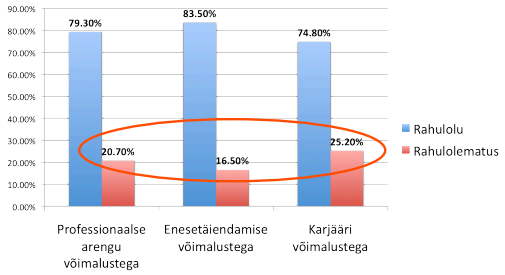
Job satisfaction with career opportunities at TUT *(Teichmann, 2010)*



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Academic Personnel Occupational Stress Study and Web-based Prevention System *(Teichmann, M. et al., 2009-2013)*

Research Method

Electronic questionnaire with 90 occupational stressors in university academics

- AcadOSI Estonian Web address: http://www.enop.ee/tpi/acadosi.php
- AcadOSI French Web address: http://www.enop.ee/AcadOSIFrench.php

Primus ELU VIB SIHTASUTUS ARCHIMEDES

Euroopa Liit Euroopa Sotsiaalfond

Eesti tuleviku heaks

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Factor: Professional development

- Permanent need for self-improvement
- Need to use new equipment, technologies, didactic methods
- Opportunities for professional development
- Unclear promotion prospects
- Inadequate resources (incl. time) for lifelong learning
- Traveling

Primus

ELU VIIB SIHTASUTUS ARCHIMEDES

Euroopa Liit Euroopa Sotsiaalfond

Eesti tuleviku heaks

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The Studies

October 2009 - April 2010	**Pilot study**	• **N=117**; 21 professors, 18 associate professors, 67 lecturers and 11 researchers; 73 male and 44 females; average age 43.76 years
2010 - 2011	**TUT** faculties of science and engineering	• **N=306**; 21 professors, 18 associate professors, 67 lecturers and 11 researchers; 174 males and 129 females; average age 41.57 years
2011	**Bordeaux University** faculties of science and engineering	• **N=44**; 29 Maitres de Conferences and 15 Professeurs; 34 males and 11 females;; average age 43.03 years
2011/2012	**Other Estonian universities**	• **N=152**; 15 professors, 33 associate professors, 60 lecturers and 44 researchers; 80 males and 71 females;; average age 45.68 years

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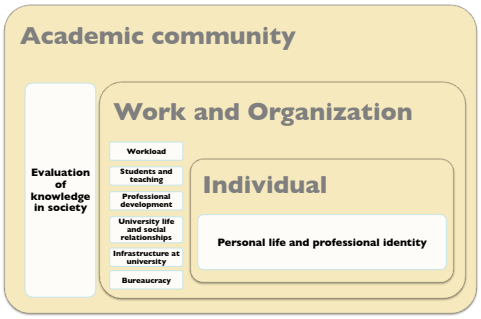
The Model of Pressures in University Academics



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Correlations Among Occupational Stress Factors

Stress factor	1	2	3	4	5	6	7	8
1. University life and relationships	1							
2. Students and teaching	0.45	1						
3. Workload	0.49	0.41	1					
4. Personal life and professional identity	0.63	0.53	0.52	1				
5. Evaluation of knowledge in society	0.57	0.53	0.46	0.54	1			
6. Bureaucracy	0.64	0.51	0.67	0.60	0.58	1		
7. Professional development	0.59	0.33	0.41	0.53	0.47	0.49	1	
8. Infrastructure	0.57	0.53	0.41	0.51	0.47	0.57	0.36	1
all correlations: p<0.001								
Age	-0.12	-	-0.20	-0.15	-	-	-0.23	-0.12
Gender	0.10*	-	-	-	-	-	-	-
Occupational life (years)	-0.13	-	-0.14	-0.15	0.13*	-	-0.20	-0.14

* p<0.05

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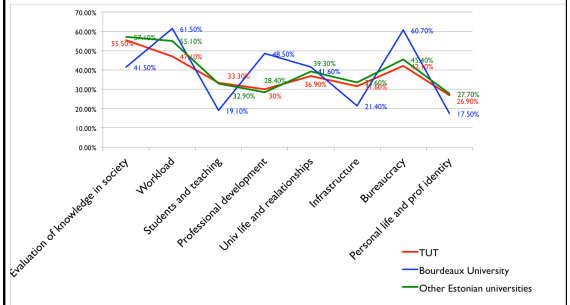
The Sources of Pressure for Academic Staff



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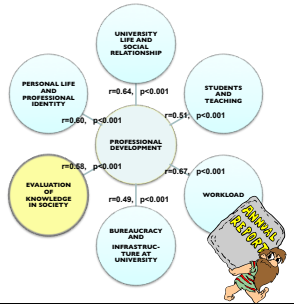
Professional development of academic staff related with different areas



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Challenges

- **Professional development of academic staff is not separate area in university**
- **Various factors are in direct connection with academic staff' professional development**

1. University life and social relationship
2. Students and teaching
3. Workload
4. Personal life (work/life balance) and professional identity
5. Bureaucracy
6. Infrastructure at university
7. Evaluation of knowledge in society

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Challenges

- **For further progress of professional development academic staff in university it's necessary to think carefully about**

1. Permanent need for self-improvement
2. Need to use new equipment, technologies, didactic methods
3. Opportunities for professional development
4. Unclear promotion prospects
5. Inadequate resources (incl. time) for lifelong learning
6. Traveling

because previously named factors acting as sources of occupational stress in university academics

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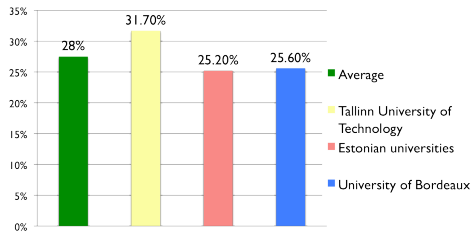
Permanent need for self-improvement as a stressor for academics



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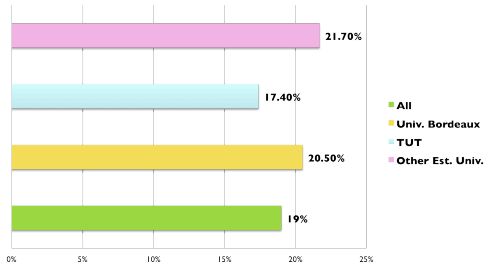
Need to use new equipment, technologies, didactic methods as a stressor for academics



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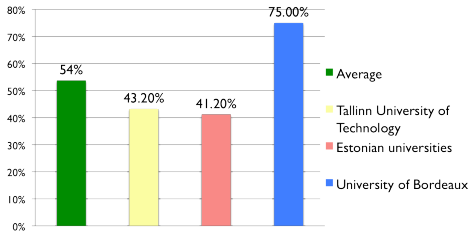
Lack of opportunities for professional development as a stressor for academics



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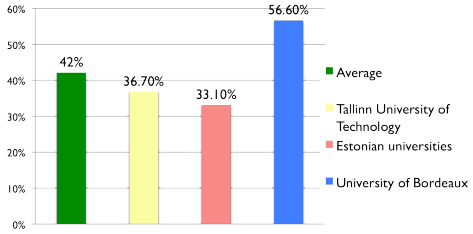
Unclear promotion prospects as a stressor for academics



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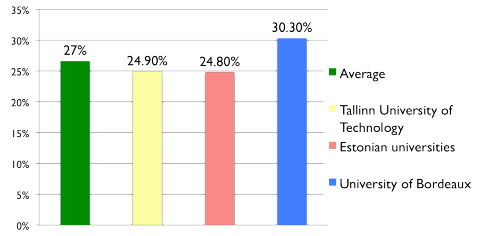
Inadequate resources (incl. time) for lifelong learning as a stressor for academics



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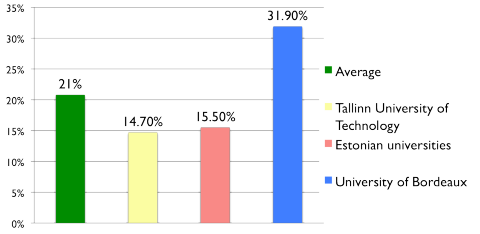
Traveling



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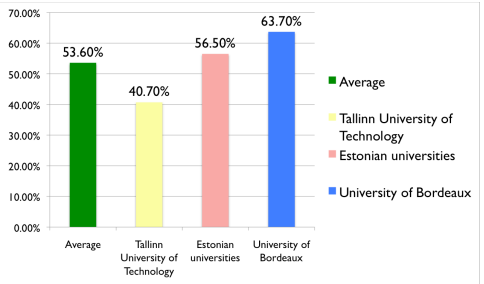
Excessive reorganizing, restructuration e.g. organizational change as a stressor for academics



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Thank You!

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