Finnish certification system for experts assessing moisture and indoor air problems

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SFS-EN ISO/IEC 17024

”Competence is ability to apply knowledge and skills to achieve intended results”

fise.fi/
patevyyspalvelu.fi/

KNOWLEDGE

Verified knowledge in the field of certification.

Commitment to continuous development by performing regularly updating training.

SKILLS

Recent work experience in the field of certification.

ATTITUDE

Respect to profession, colleagues, authorities and other parties involved in projects.

Promoting a positive and fair atmosphere.

FISE

THE WAY FROM STUDENT TO CERTIFIED PROFESSIONAL

STUDIES
Set your own goals and choose your studies according to your goals

DEGREE
Make a profile to the FISE certification service

WORK EXPERIENCE
Record your work experience to FISE certification service

APPLY FOR CERTIFICATION
patevyyspalvelu.fi

WORK EXPERIENCE
Work in the field of certification and record it

UPDATING TRAINING
Enhance your knowledge

APPLY FOR RENEWAL FOR CERTIFICATION
patevyyspalvelu.fi

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SITUATION IN FINLAND IN THE EARLY 2000s

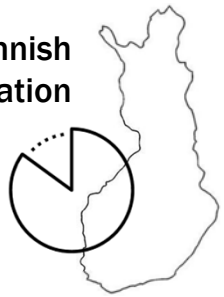
In early 1990s moisture and mould damage was recognised in Finland as a significant problem in interiors of buildings.

Even every second building had signs of excessive damp

Poor indoor air quality

Every day about 750 000 Finnish people was exposed to significant moisture and mould damage

15 % of Finnish population



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Health effects

The level of health-related costs arising from moisture and mould damage were about 450 million € per year

SITUATION IN FINLAND IN THE EARLY 2000s

In 2009 the Government decided to launch an action plan to stop moisture and mould damage

KOSTEUS- JA HOME TALKOOT

MOISTURE AND MOULD PROGRAMME

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Moisture and Mould programme (2009 – 2015)

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MOISTURE AND MOULD PROGRAMME

Evaluation of competence of experts

- No standardized qualification requirements
- “Experts” had either competence in indoor climate or structures
- Some trainings were available
- Volunteer registration of some experts

Evaluation of 3rd party experts used in monitoring health related conditions was made by the municipal health protection authorities

- Every municipal had their own requirements
- A lot of time was spent to this task
- All the authorities didn’t have competence to evaluation

KOSTEUS- JA HOME TALKOOT

MOISTURE AND MOULD PROGRAMME

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2013

Moisture and Mould programme made recommendations for organising training and qualifications for the moisture and mould damage sector in Finland

2014

The Land use and Building Act was renewed (Lagom ändring av markanvändnings- och bygglagen 41/2014)

- A new special field to repair work of moisture damaged structures
- Qualifications for designers and site managers of repair work of moisture damaged structures

The Health Protection Act was renewed (Lagom ändring av hälsoskyddslagen 1237/2014)

- Qualification to moisture and indoor air experts
- Compulsory certification

2015

Certification organisations established new certification schemes for repair work of moisture and mould damage

FISE Oy

- Designers
- Site managers
- Building investigator of moisture damaged structures

Eurofinns Expert Services Oy

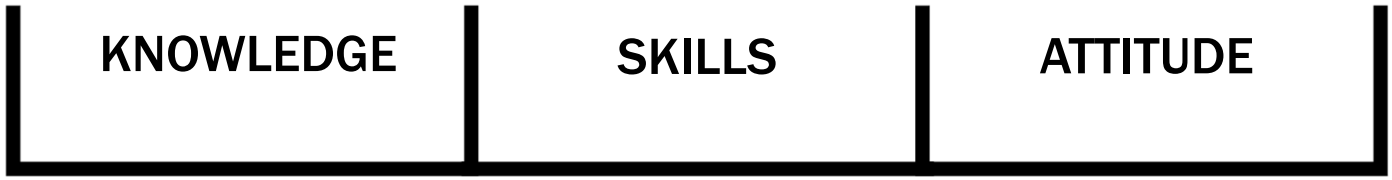
- Building health experts
- Indoor air specialists

CERTIFICATION REQUIREMENTS FOR EXPERTS ASSESSING MOISTURE AND INDOOR AIR PROBLEMS

Social- och hälsovårdsministeriets förordning om sanitära förhållanden i bostäder och andra vistelseutrymmen samt om kompetenskrav för utomstående sakkunniga (545/2015)

- Expert på hälsoriktigt byggande (Building health expert)
- Expert på inomhusluft (Indoor air specialist)
- Konditionsgranskare med kunskap om fuktskador (Building investigator of moisture damaged structures)

(https://www.finlex.fi/sv/laki/alkup/2015/20150545)



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REQUIRED QUALIFICATION TRAINING FOR EXPERTS ASSESSING MOISTURE AND INDOOR AIR PROBLEMS

	BUILDING HEALT EXPERT	BUILDING INVESTIGATOR FOR MOISTURE DAMAGED STRUCTURES	INDOOR AIR SPECIALIST
INDOOR AIR IMPURITIES, HEALTH EFFECTS AND INVESTICATION	**13 cr**	**7 cr**	**13 cr**
Indoor air impurities	8	5	8
Indoor air investigation methods	3	1	3
Health effects	2	1	2
BUILDING PHYSICS, PHYSICAL CONDITIONS, BUILDING INVESTIGATION METHODS, STRUCTURAL AND PRODUCTION ENGINEERING, LEGISLATION	**14 cr**	**17 cr**	**9 cr**
Building physics and physical conditions	5	5	5
Building investication methods	4	5	2
Structural and production engineering	3	5	1
Legislation	2	2	1
VENTILATION AND AIR CONDITIONING TECHNOLOGY	**3 cr**	**3 cr**	**3 cr**
Theory	1,5	1,5	1,5
Investication methods	1,5	1,5	1,5
THESIS	**15 cr**	*	**
	45 cr	**27 cr**	**25 cr**

1 credit (cr) is equal to 27 hours of a student's work

*) Building investigation report of a real case

**) Indoor air investigation report of a real case

QUALIFICATION REQUIREMENTS FOR EXPERTS ASSESSING MOISTURE AND INDOOR AIR PROBLEMS

	BUILDING HEALT EXPERT	BUILDING INVESTICATOR FOR MOISTURE DAMAGED STRUCTURES	INDOOR AIR SPECIALIST
DEGREE	1. Higher education degree in building (construction or HVAC) or 2. Higher or lower academic degree in natural sciences, environmental sciences and environmental health	Higher education degree in building (construction)	Higher or lower academic degree in natural sciences, environmental sciences and environmental health
WORK EXPERIENCE	Minimum of 3 years of research tasks related to the condition of and health hazards in buildings	Minimum of 3 years of research tasks related to the condition of and health hazards in buildings	Minimum of 3 years of research tasks related to the condition of and health hazards in buildings
QUALIFICATION TRAINING	45 cr	27 cr	25 cr

EXAMPLE: CERTIFICATION REQUIREMENTS FOR BUILDING INVESTIGATOR OF MOISTURE DAMAGED STRUCTURES

DEGREE:

Bachelor or Master degree in the field of building technology

STUDIES:

Qualification training (27 cr)

WORK EXPERIENCE:

At least 3 years tasks related to condition of buildings and health effects

FISE code of ethics

KNOWLEDGE	SKILLS	ATTITUDE

https://fise.fi/patevyyspalvelu/hae-patevyytta/energia-ja-kuntoasiantuntijat/kosteusvaurion-kuntotutkija/

FISE

EXAMPLE: CERTIFICATION RENEWING REQUIREMENTS FOR BUILDING INVESTIGATOR OF MOISTURE DAMAGED STRUCTURES

STUDIES:

Updating training (at least 10 days of training during the past 5 years)

WORK EXPERIENCE:

References in investigation of moisture and mould damages (at least 15 report from the past 5 years)

FISE code of ethics

KNOWLEDGE | SKILLS | ATTITUDE

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FISE

EXPERIENCES SO FAR

- 7 training organization are giving certification trainings
- 431 certified persons all together
- Voluntary certifications for other experts (for example Building investigator of ventilation systems)
- A lot of new information has been produced in training programs
- Health protection authorities can use certified experts in assessing health effects
- Clients demand certified experts in their offer requests
- Expertise has also increased among municipal health protection authorities

The amount of certified persons in FISE's and Eurofinns' registry (2.10.2020)

Building health expert	358
Building investigator of moisture damaged structures	46
Indoor air specialist	27

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TO BE DEVELOPED

- More effective sharing of good practice
- Development of investigation methods
- Dialogue between ministries and uniform legislation
- Management of entities: Better use of research data in renovation design
- A lot of problems in the field of detached houses
- Compulsory certification for building condition assessors

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THANK YOU!

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