



Case Study: SMK National Gallery of Denmark



MUSEUM INTRODUCTION

Location: Copenhagen, Denmark

Building: 1896 & 1998 more than 30.000 m²

Type of collection: More than 200,000 works of art from 7 centuries

Staff: 120

Visitors: approx. 600.000





CHAMPION INTRODUCTION

Pil Rasmussen, Head of Conservation, SMK

Inger Smærup Sørensen, Green Transition Project Manager, SMK

Niels Borring, Paper Conservator, SMK

Louise Cone, Contemporary Art & Sculpture Conservator, SMK

Karen-Marie Henriksen, Paintings Conservator, SMK

Thor Nørmark-Larsen, Lead Registrar, SMK

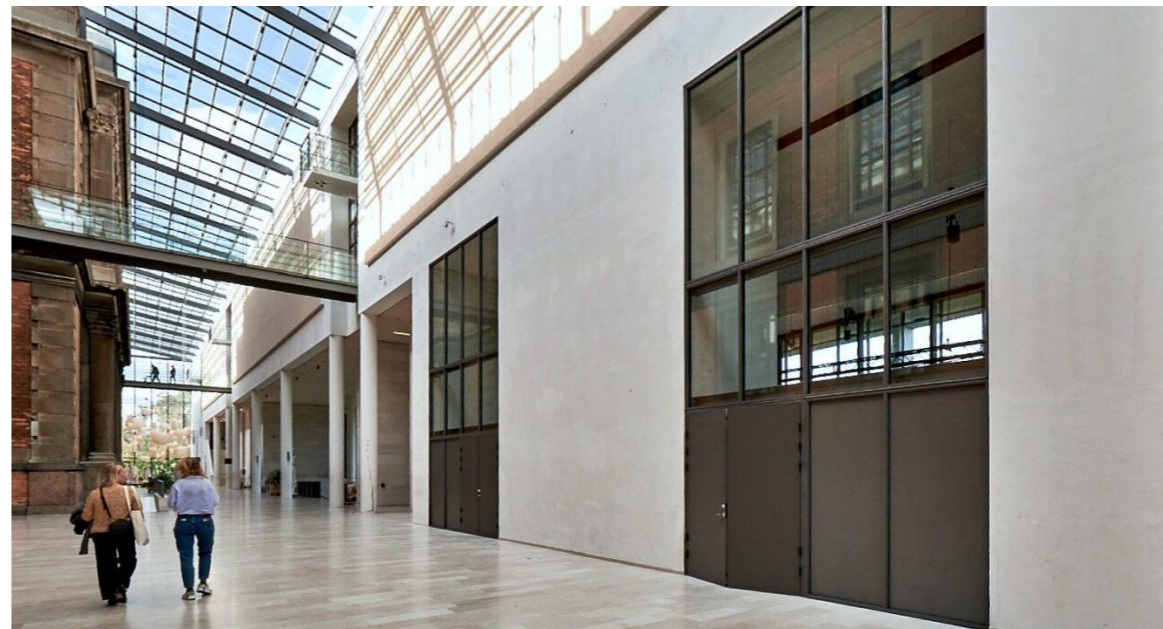
Mike Coffman, Security Manager, SMK

Jens Davidsen, Operations Manager, SLKS (The Agency for Culture and Palaces)

Ole Hansen, Energy Consultant, SLKS

Four main reasons to take part in KI Futures' Climate Control programme

- Green transition is priority at SMK
- Very complex climate control setup
- Long time wish to consolidate information and knowledge
- Find new ways of cooperation across the organisation and with The Agency for Culture and Palaces
- Complex building



Building



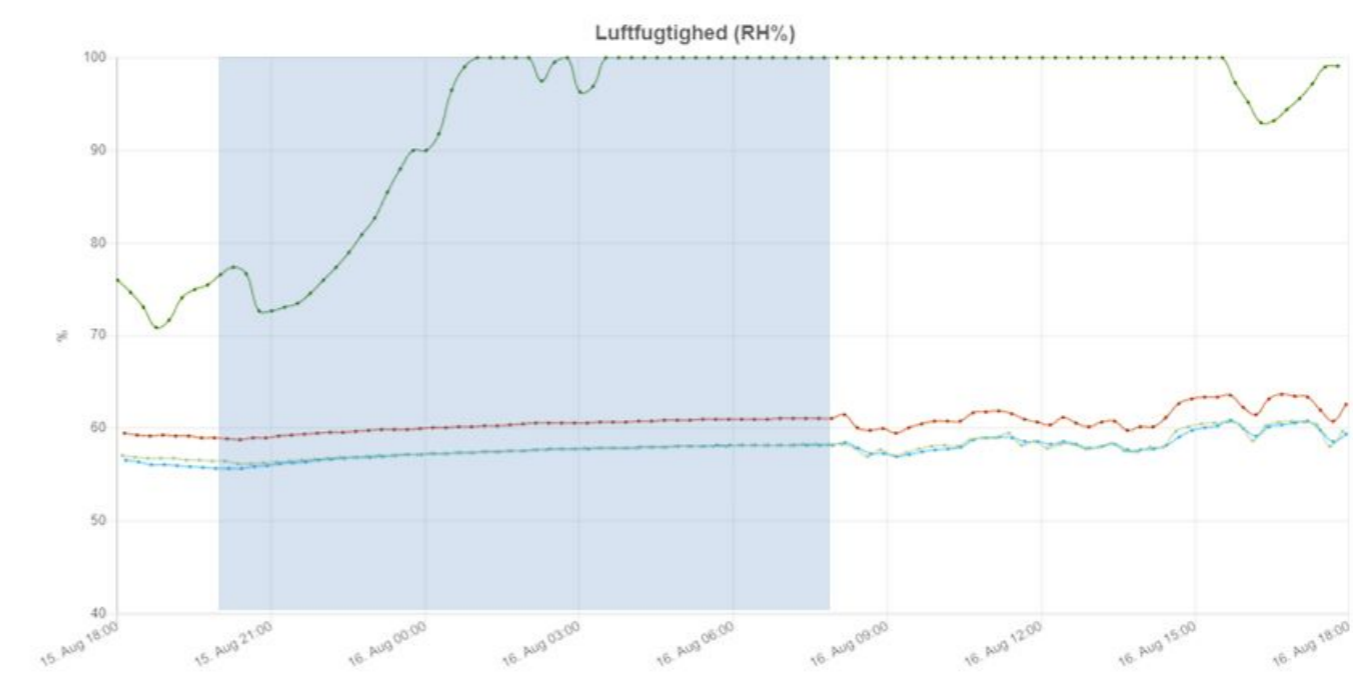
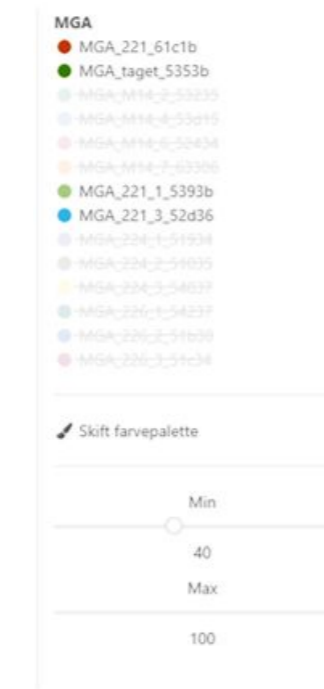
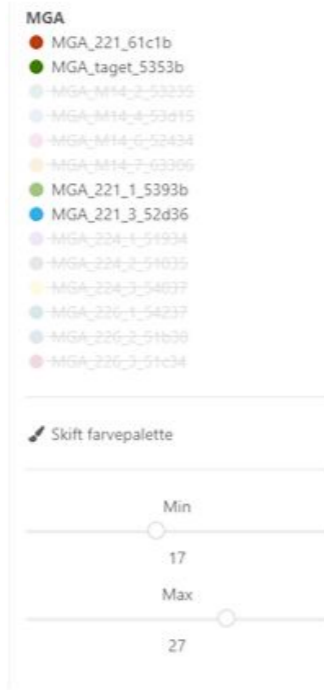
Experimental efforts at SMK

Shutdowns of HVAC units in two areas

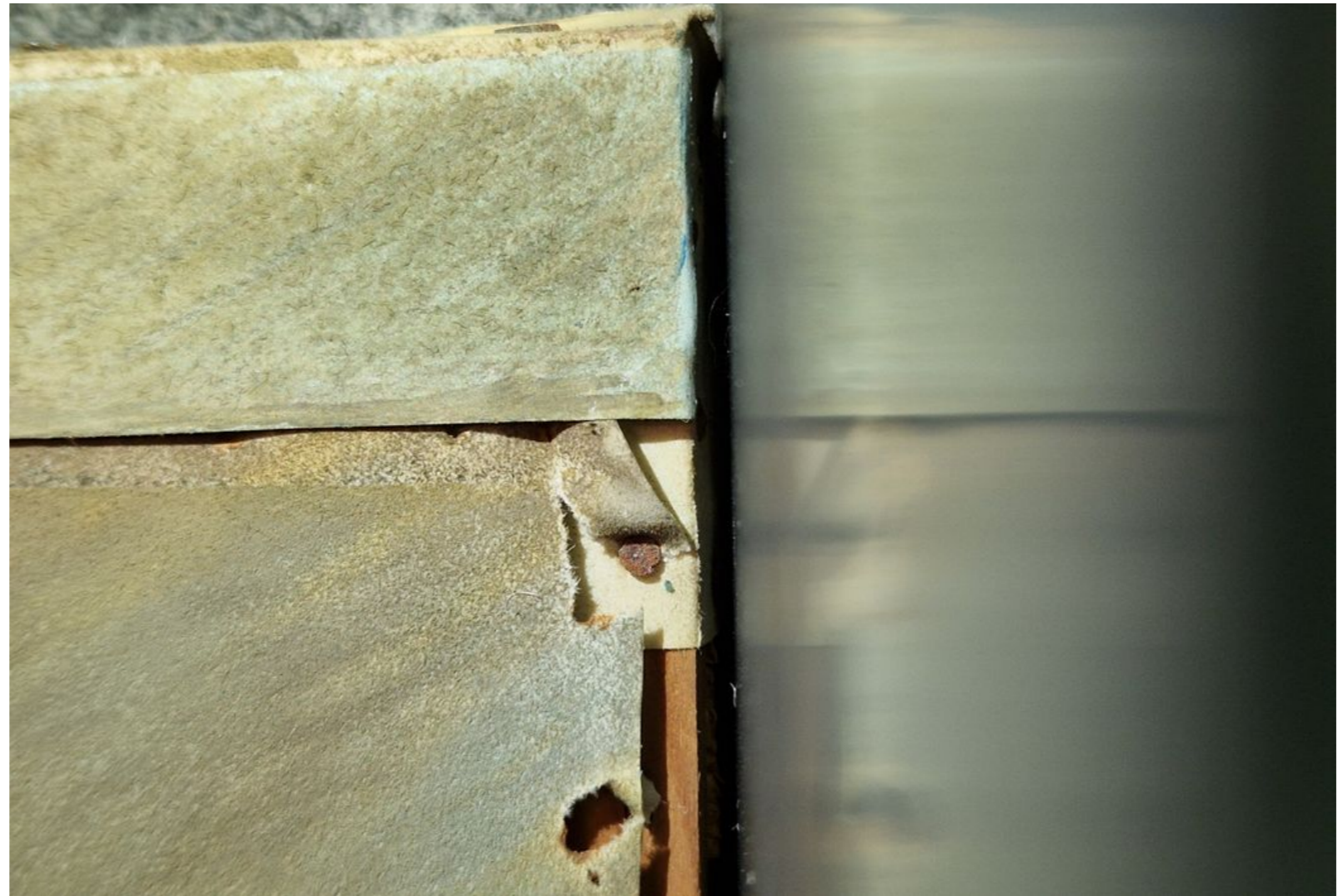
- Test how far the limits for lowering energy consumption of the HVAC system could be pushed
- Test the building's ability to keep a stable climate for a limited period of time
- Gain more knowledge about the building and the climate control system



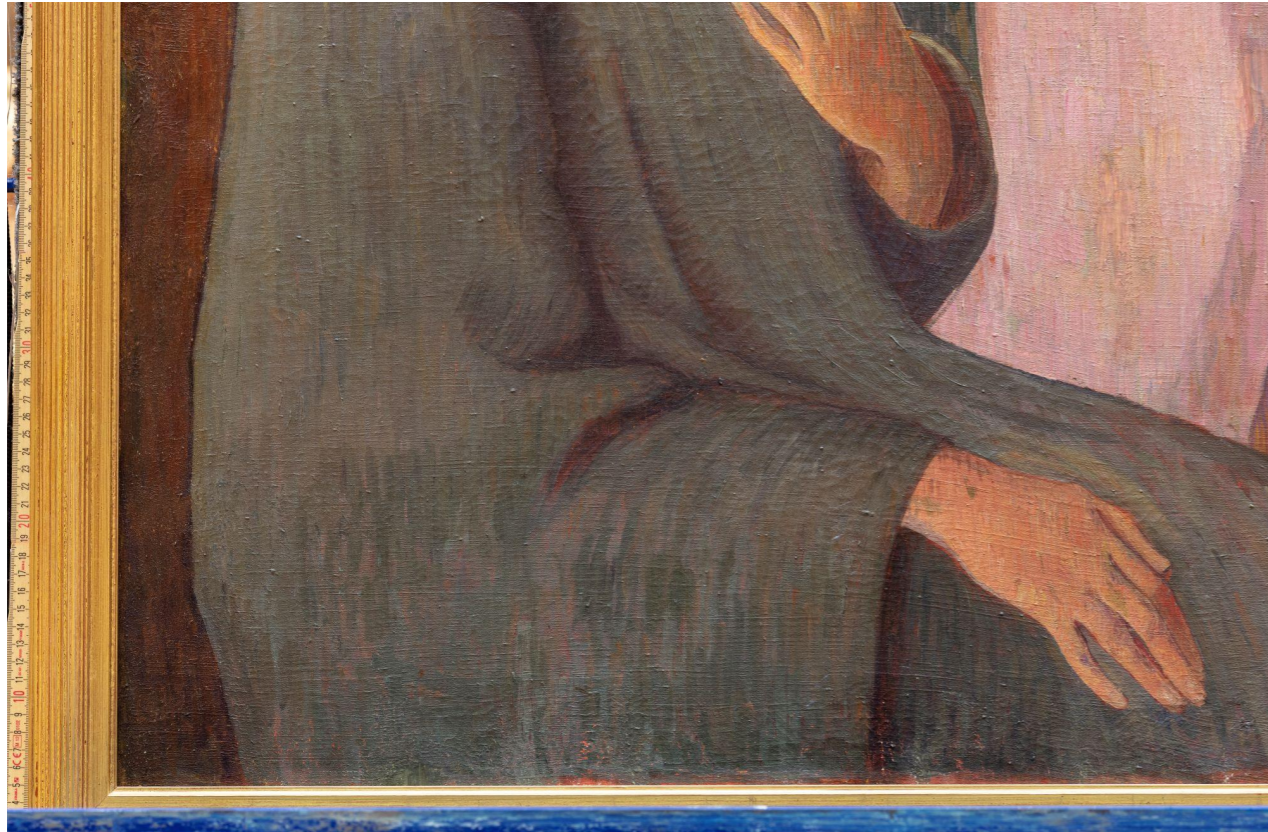
Findings



Selected artworks to monitor







SUCCESSSES

- Renewed focus on maintenance and operations
- Structure for cross-disciplinary cooperation
- Enhanced knowledge about the building
- Focus on knowledge structure
- Plan for testing and decision making
- Nightly shut-downs of 2/45 HVAC units

OBSTACLES

- Lack of funding
- Lack of time
- Lack of documentation
- General layout of the HVAC system
- Lack of inter-disciplinary structure
- A history of low priority of maintenance and operations

NEXT STEPS

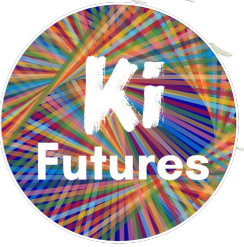
Goals

- Complete testing of the 1896 building in 2025
- Begin experiments in the 1998 building in 2026
- Set up and upkeep system for testing and decision making

Wishes

- A staff member dedicated to energy efficiency
- New zoning of the system
- Move sensors from ducts to exhibition and art storage spaces
- New digital knowledge structure
- Additional knowledge from AI

TIPS AND RECOMMENDATIONS



Use the different specialist fields and skills at your museum

ADOPT A SYSTEMS THINKING APPROACH - Understanding the interconnectedness of various elements within the institution's ecosystem is essential

Collect knowledge and make sure it is available and easy to find

IDENTIFY AND OVERCOME BARRIERS

Create general awareness in your organisation of the role of climate control

Suggest your museum gets a green transition strategy to back up your work

articheck⁺



Thank you!

Pil Rasmussen & Inger Smærup Sørensen

