



Society of Vertical Transportation  
Annual General Meeting  
and Technical Seminars 2026  
9<sup>th</sup> April 2026



# AGENDA

- 1600 Registration and Networking
- 1630 Welcome and Opening – Phil Pearson
- 1635 Annual General Meeting – Chuan Lim
  - i. Minutes and Matters Arising from 2025 AGM
  - ii. SoVT Membership Updates
  - iii. Treasury Report
  - iv. Social Media Report
  - v. Codes and Standards
  - vi. UK Events Updates
  - vii. Committee Updates
- 1730 Technical Seminar 1: Mass Migration of Lift Alarm Connections – Matthew Davies / Chris Holmes
- 1750 Technical Seminar 2: Artificial Intelligence in Lift Systems – Matthew Appleby
- 1810 Technical Seminar 3: BS 5655-11 – Nick Mellor
- 1830 Networking
- 1855 Event Close

# Welcome and Opening

Phil Pearson (Pearson Consult)

# Annual General Meeting

Chuan Lim (Foster + Partners)

# 2025 AGM Minutes / Matters Arising

## Minutes of the CIBSE Lifts Group Annual General Meeting

06 March 2025, 1730-1800h

### PRESENT

Adam Scott	AS
Ben Richardson	BR
Gemma Moore	GM
John Bashford	JB
Leonora Lang	LL
Michael Bottomley	MB
Paloma Huelva Coronado	PHC
Paul Clements	PC
Phil Pearson	PP
Richard Peters	RP
Vincent Sharpe	VS
Wee Chuan Lim	WCL

#### CIBSE Representative:

- Richard Goldsbrough
- Ceri Saunders
- Ella Sumner

### APOLOGIES

John Carroll	JC
Nick Mellor	NM
Stefan Kaczmarczyk	SK
Dave Cooper	DC
Erkan Soydan	ES
Jonathan Bracken	JBr
Rory Smith	RS

### DISTRIBUTION

Those present, apologies and web site



The Chartered Institution of  
Building Service Engineers

222 Balham High Road  
London SW12 9BS

Telephone 020 8675 5211  
Facsimile 020 8675 5449  
www.cibse.org

### 1. Welcome and apologies

MB opened the meeting.  
Apologies received were noted.

Note

### 2. Minutes of the previous meeting

The previous minutes were reviewed and accepted without amendment.

Note

### 3. Matters arising not on the agenda

MB shared updates of SoVT. Working closely with CIBSE, making good progress. Some actions for the next Board meeting on 23 April 2025. Still on track for Sep launch.

Note

### 4. Elections of Officers

The AGM will be held in person at SWECO London on 06 March 2025 at 1730h.

Note


#### a. NEW Nominations of 2025:

Chair	MICHAEL BOTTOMLEY	Proposer =
Vice Chair	PHILL PEARSON	Richard Peters
Secretary	WEE CHUAN LIM	
Assistant Secretary	LEONORA LANG	Seconded =
Treasurer	RICHARD PETERS	Phil Pearson
Assistant Treasurer	BEN RICHARDSON	
Events Organiser (North)	GEMMA MOORE	
Events Organiser (South)	PALOMA HUELVA CORONADO	
BSI Representative / Codes and standards	ADAM SCOTT	
Event Exhibition	JOHN BASHFORD	
Training Development	DAVID COOPER	
Press & Publicity	PAUL CLEMENTS	
LEIA Representative	NICK MELLOR	
University of Northampton Representative	STEFAN KACZMARCZYK	
SAFED Representative	JONATHAN BRACKEN	
INITA Representative	VINCE SHARPE	
International Representative USA	RORY SMITH	
International Representative AU	JOHN CARROLL	
International Representation UAE	ERKAN SOYDAN	

5.	<p><b>Report for 2024</b></p>	
	<p>CL ran through the events of 2024. Special mention was made of the great turnout to the Annual Seminar at Novotel. Hopefully, we will be able to use CIBSE's new HQ for events starting in October 2025.</p>	Note
6.	<p><b>Events in 2025</b></p>	
	<p>a. Welcome of Gemma and Paloma as North and South Events organisers respectively. The Executives will plan the following seminars/events. Check the CLG website for updates.</p> <ul style="list-style-type: none"> <li>• 6 Mar 2025 (1730 - 1900h) –AGM and Evening Seminars</li> <li>• 23 Apr 2025 (1700 - 1930h) – Scotland Seminar</li> <li>• 21 May 2025 (1600 - 1800h) – Manchester Seminar</li> <li>• 2 or 3 Jul (1600 - 1800) – Birmingham Seminar</li> <li>• 23 Sep 2025 – Guide D Launch</li> <li>• 24-25 Sep 2025 – Lifts and Escalators Symposium</li> <li>• Oct 2025 – Away Day for SoVT planning</li> <li>• Nov 2025 – Annual Seminar</li> </ul>	Note
	<p>All to email suggestions to <a href="mailto:liftsgroup@cibse.org">liftsgroup@cibse.org</a></p>	Note
7.	<p><b>Education, Training and CPD</b></p>	
	<p>a. Erkan to share online training details</p>	Note
8.	<p><b>Treasurer's Report for 2024</b></p>	
	<p>RP: shared 2024 status. Old account still live. Trialling new CIBSE budgeting, hopefully, will be more accurate when we know the venues to hold events in London as that is the largest cost.</p>	Note
9.	<p><b>Standards and Regulations</b></p>	
	<p>Adam provided National and General Updates.</p>	Note
10.	<p><b>Publicity and Social</b></p>	
	<p>Paul Clements reports on the continued growth of online followers, due mainly to the regular posts.</p>	Note

11.	<p><b>AOB/ Next AGM 2026</b></p>	Note
	<p>Tentatively planned for 10 February 2026.</p>	Note
12.	<p><b>Close and Evening Seminars</b></p>	
	<p>End</p>	

# SoVT Launched Sep 2025




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News > CIBSE Launches SoVT

## CIBSE Launches SoVT

By Elevator World | Daily News | September 24, 2025  
1 min to read



The **Chartered Institution of Building Services Engineers (CIBSE)**, the international professional body headquartered in London, U.K., has announced the official launch of the Society of Vertical Transportation (SoVT), an international professional community for individuals and organizations working across the design, engineering, installation and innovation of lifts, escalators and emerging vertical mobility systems. The SoVT builds on the legacy of the well-established CIBSE Lifts Group. The new society formalizes this foundation, offering a recognized structure for professional membership, specialist continuing professional development, collaboration and international engagement. The launch coincides with the release of the CIBSE Guide D 2025 – Transportation Systems in Buildings, an internationally recognized reference for vertical-transportation professionals. Covering passenger and goods lifts, escalators, moving walks, lifting platforms and emerging technologies, the updated guide offers practical advice for design, installation, commissioning, operation and maintenance. The 2025 edition introduces a modular, multi-part format designed for clarity and usability, providing comprehensive guidance on interior circulation, human factors and inclusive design, as well as lift traffic planning and system performance optimization. It covers system components, controls and drive technologies, alongside accessibility and inclusivity considerations, energy efficiency and environmental performance. The guide aligns with current U.K. legislation, safety codes and international best practice, and is complemented by resources available through the SoVT.

f in @ X ✉



Automated Logic Building Automation for Optimized Environments

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## CIBSE launches Society of Vertical Transportation to elevate standards worldwide

23/09/2025

10 November, 2025




*CIBSE has officially launched the Society of Vertical Transportation (SoVT), an international professional community for individuals and organisations working across the design, engineering, installation and innovation of lifts, escalators and emerging vertical mobility systems.*

The SoVT builds on the legacy of the well established CIBSE Lifts Group, which has supported technical excellence in vertical transportation for decades. The new society formalises this foundation, offering a recognised structure for professional membership, specialist continuing professional development (CPD), collaboration and international engagement.

The launch coincides with the release of the CIBSE Guide D 2025 – Transportation Systems in Buildings, an internationally recognised reference for vertical transportation professionals. Covering passenger and goods lifts, escalators, moving walks, lifting platforms and emerging technologies, the updated guide offers practical advice for design, installation, commissioning, operation and maintenance.

“The Lifts Group has for the last 30 years been the backbone supporting CIBSE Guide D,” said Michael Bottomley, Chair of SoVT. “Now the guide proudly bears the name and logo of the Society of Vertical Transportation. Our ambition is to become the worldwide hub for vertical transportation technology and education. Through CPD seminars and international engagement, we aim to educate, mentor and support professionals at every stage of their careers.”



The Society of Vertical Transportation provides pathways to recognition, development and collaboration across the global built environment. Supporting all roles involved in



## CIBSE launches new Society of Vertical Transportation to elevate standards worldwide


23/09/2025

Share f X in ✉





24.03.26 - MANCHESTER  
BOOK YOUR TICKETS TODAY

CIBSE announced the official launch of the **Society of Vertical Transportation (SoVT)**, an international professional community for individuals and organisations working across the design, engineering, installation and innovation of lifts, escalators and emerging vertical mobility systems.




News | CIBSE news | Technical | CPD | Webinars | Jobs | Ca



## CIBSE creates Society of Vertical Transportation

New Society will be a dedicated professional home for those involved in the design, operation and evolution of how people and goods move through buildings

Posted in August 2025



# SoVT Membership Updates

- **250 Members since September 2025**

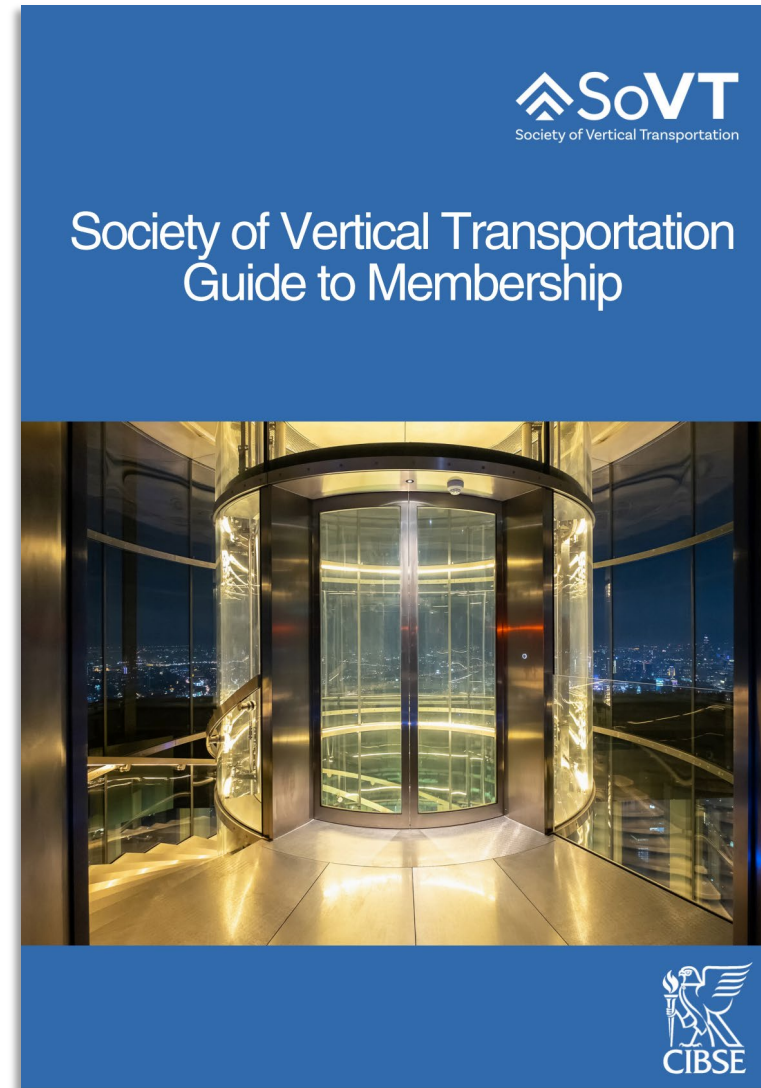
Fellow	17
Member	16
Associate	5
Licentiate	6
Affiliate	122
Student	84
Correspondents	4321

**There is an SoVT membership grade for you – whether early in your career, an established specialist or you just have a passing interest in VT. All SoVT membership is awarded through CIBSE membership.**

Explore the options below to find the membership grade that reflects your experience and ambition.

- **Student** – For current students on STEM-related programmes interested in vertical transportation. Free to join.
- **Affiliate** – For those new to the industry or interested in staying connected to the sector. Join through CIBSE Affiliate membership.
- **Correspondent** – For individuals who want to stay connected with SoVT events and updates but are not CIBSE members. Free to join.
- **Licentiate (LSoVT)** – Ideal for technicians and EngTech level professionals, fast-track application also available.
- **Associate (ASoVT)** – For experienced engineers and technical leads, aligned with IEng level standards, fast-track application also available.
- **Member (MSoVT)** – Recognises experienced professionals working at or towards Chartered Engineer (CEng) level, fast-track application also available.
- **Fellow (FSoVT)** – For sector leaders making significant contributions to the vertical transportation profession. Includes a peer-reviewed assessment process.

Find out more information about how to apply for [SoVT Membership](#).



# Treasury Report

Ben Richardson (SWECO)

## CIBSE Lifts Group Final Accounts

Surplus of £9,817.33

<b>Your Charitable Bank Account details</b>				
<i>Date</i>	<i>Payment type and details</i>	<i>Paid out</i>	<i>Paid in</i>	<i>Balance</i>
04 Nov 25	BALANCE BROUGHT FORWARD			7,706.40
17 Nov 25	██████████			
	2025 Guide D event		2,110.93	9,817.33
04 Dec 25	BALANCE CARRIED FORWARD			9,817.33

Final account surplus of donated to The Lift and Escalator Symposium Educational Trust (Charity No 1170947), whose charitable purposes closely align with the CLG / SoVT.

### SOVT 2026 Budget

Budget agreed with CIBSE allowing for planned events, marketing, seminars and anticipated venues (AGM, Symposium, Regional Seminars etc)

# Social Media Report

Paul Clements (D2E)

589 new followers on LinkedIn in the past 12 months.

1500 overall page followers.

52 Posts throughout 2025 (With help from CIBSE Marketing + Exec Group).

Regular posts planned for 2026.

Collaborations with Lift Industry News, LEIA  
Sharing Posts, News Articles, etc.

[Scan and follow the SoVT LinkedIn Page](#)



# Codes and Standard Updates

Adam Scott (VT Studio)

# **Society of Vertical Transportation**

## Codes and Standards Update

April 2026

# Codes & Standards



- **BS EN81-28 Safety rules for the construction and installation of lifts – Part 28: Two-way communication system.**  
Public comment phase now closed. Publication expected later this year
- **BS EN 81-72: Firefighters lifts**  
Draft for public comment likely this summer. Minimum size likely to increase to 1570 mm (w) x 1370 mm (d) or vice versa between final finishes. Minimum rated load of 1000 kg. Double-deck clearly brought within scope.
- **BS EN81-76 Safety rules for evacuation lifts.**  
Now published. Not retrospective but transition management is proving a challenge. Useful LEIA guidance at: <https://www.leia.co.uk/bs-en-81-76-evacuation-lift-guidance/>
- **BS EN 81-82: Safety rules for the construction and installation of lifts – Existing lifts - Part 82: Rules for the improvement of the accessibility of existing lifts for persons including persons with disability**  
Published December 2025.

# Codes & Standards



- **BS EN 81-83: Safety rules for the construction and installation of lifts – Existing lifts - Part 83: Rules for the improvement of the resistance against vandalism**  
Published December 2025.
- **BS EN 81-42: Safety rules for the construction and installation of lifts – Special lifts for the transport of persons and goods Part 42: Vertical lifting appliances with enclosed carrier intended for use by persons, including person with disability**  
Published December 2025.
- **BS EN 81-30: Safety rules for the construction and installation of lifts – Lifts for the transport of goods only Part 30: Electric and hydraulic service lifts**  
Published December 2025.
- **BS EN 115-1 / ISO 8103: Safety of escalators and moving walks**  
DPC thought to be likely end of 2026 with publication due 2027. Will probably include fall protection requirements where fall hazard of more than 2 m exists as measured from the top of the handrail. Auxiliary brakes will be mandatory on all escalators regardless of rise.

# Codes & Standards



- **BS 5655-11 Lifts and service lifts – Part 11: Modifications to existing lifts - Code of practice.**  
Now out for public comment – deadline for comments is tomorrow!
- **BS 8300:** under review currently controlled by B/559.
- **BS 8486-10:** testing of evacuation lifts. Linked to publication of Part 76. Working draft now well developed. Draft for public comment expected soon.
- **BS 8899:** modification/modernization of fire-fighting and evacuation lifts. Working group now convened and work is progressing.
- **BS 9991:** now published!
- **BS 9999:** revision underway now informed by published Part 76. Draft for public comment expected Q2 next year
- **Guide D 2025:** now published. Free to CIBSE members

# Codes & Standards - General



## Timetable for the next London Plan

The indicative timetable for preparing the next London Plan is set out below

- High level document – [Towards a new London Plan](#) (May / June 2025)
- Draft London Plan consultation (Summer 2026)
- Examination process (2026 – 2027)
- Adoption (2027)



**I want to forge a new consensus on planning that's fit for 21st century London, where we build the affordable housing we need – including on parts of the green belt. At the same time we need to increase land that is genuinely green.**

— Sadiq Khan, Mayor of London

# Codes & Standards - General

[Home](#) [Find Activities](#)

## Review of Approved Document B: Fire Safety

### Overview

Consultation proposal on changes to Approved Document B

**Closes 1 Jul 2026**

Opened 25 Mar 2026

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**Contact**

[ADBconsultation@hse.gov.uk](mailto:ADBconsultation@hse.gov.uk)

# Codes & Standards - General



- Trend towards global standards continues – EN documents becoming ISO documents
- Legal framework driving scope focus – lift standards not commenting on building design
- Public comment process – BSI registration / track for updates
- Presumption of competence to use a standard
- *Shall / Should / May / Can*
- Updated guidance on standards now available on SoVT website at:  
*<https://www.cibse.org/get-involved/societies/society-of-vertical-transportation-sovt/knowledge-and-learning/codes-and-standards/>*

**Questions?**

# UK Events

Gemma Moore (Dewhurst)

# 2025 Events

- March - AGM and Seminars
- April – Scotland Seminars
- May – Manchester Seminars
- Sep – SoVT and CIBSE Guide D Launch
- Sep – Lift and Escalator Symposium
- Nov – SoVT Membership Presentation
- Nov – Annual Seminar

**Check the SoVT Website for the 2026  
Events**



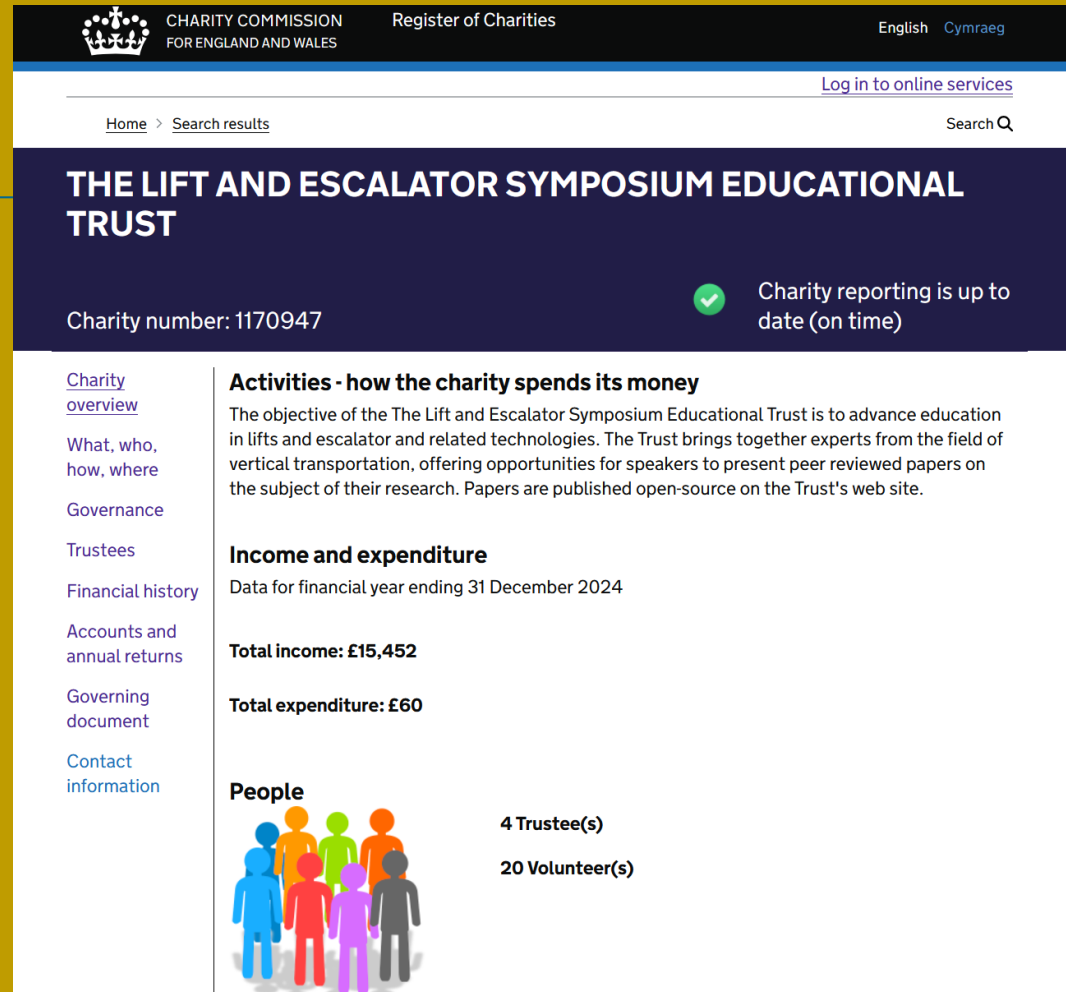
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# LES Update

Richard Peters

LES is a charity run by volunteers with a part-time Conference Director

Its objectives align closely with SoVT and most LES volunteers are involved in both



CHARITY COMMISSION FOR ENGLAND AND WALES Register of Charities English Cymraeg

Home > Search results Search Q

**THE LIFT AND ESCALATOR SYMPOSIUM EDUCATIONAL TRUST**

Charity number: 1170947 Charity reporting is up to date (on time)

[Charity overview](#)

[What, who, how, where](#)

[Governance](#)

[Trustees](#)

[Financial history](#)

[Accounts and annual returns](#)

[Governing document](#)

[Contact information](#)

**Activities - how the charity spends its money**

The objective of the The Lift and Escalator Symposium Educational Trust is to advance education in lifts and escalator and related technologies. The Trust brings together experts from the field of vertical transportation, offering opportunities for speakers to present peer reviewed papers on the subject of their research. Papers are published open-source on the Trust's web site.

**Income and expenditure**

Data for financial year ending 31 December 2024

**Total income: £15,452**

**Total expenditure: £60**

**People**

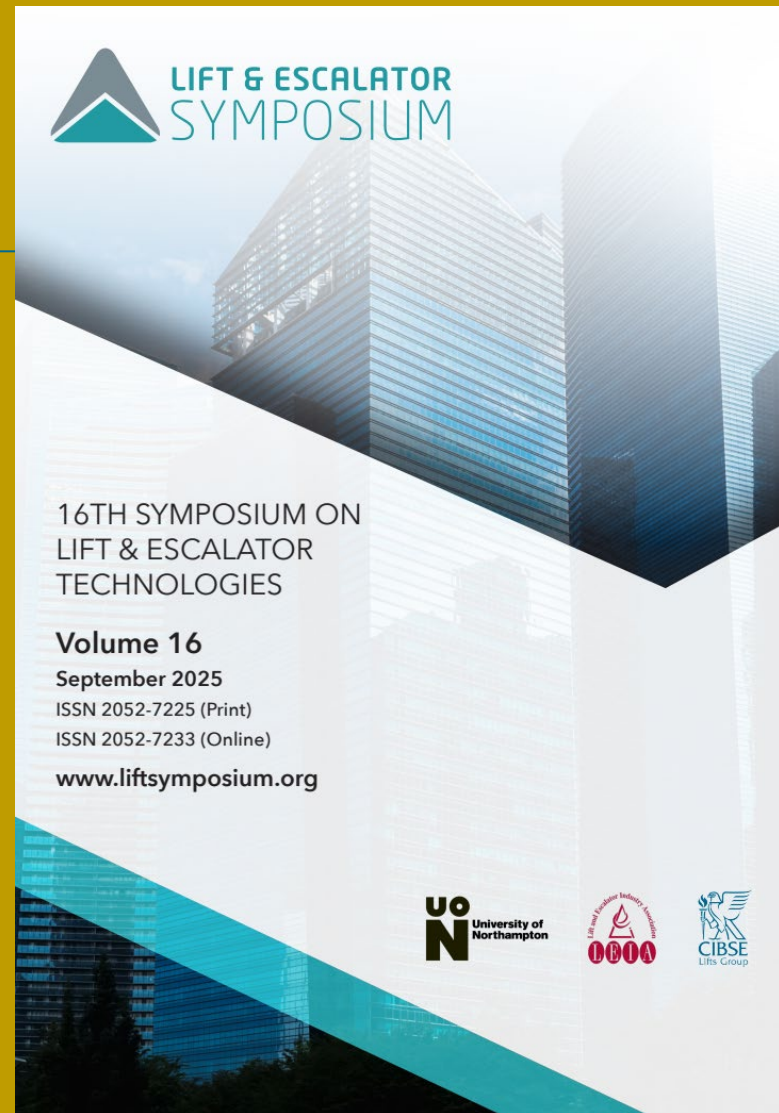
**4 Trustee(s)**

**20 Volunteer(s)**

LES 2025 was a sell-out with  
over 130 delegates and 16  
papers

Keynote: Mike Burton “The  
Future Office”

Panel Discussion: “Intelligent  
Buildings and Maintenance”



LES 2026 now open for registration

27 abstracts submitted and reviewed (some rejected)

Keynote: Ruth Carter, CIBSE Chief Executive

Panel discussion: Codes & Standards

## 17th Symposium on Lift & Escalator Technologies

The dates for 2026 are 16th - 17th September  
at Kettering Park Hotel.  
Registration is now OPEN.

# Committee Update

Chuan Lim (Foster + Partners)

## SoVT 2026/2027 Executive Committee

Chair: Adam Scott  
 Vice-Chair: Graham Barker  
 Honorary Secretary: Wee Chuan Lim  
 Assistant Secretary: Leonora Lang  
 Honorary Treasurer: Ben Richardson

### Committee

BSI Representative: Adam Scott  
 Press & Publicity: Paul Clements  
 UK Events Lead: Gemma Moore

### Industry Representative

LEIA Representative: Nick Mellor  
 INITA Representative: Vince Sharpe  
 LES Trust and Guide D: Richard Peters

### International Representative

MENA: Erkan Soydan  
 USA: Rory Smith  
 ANZ: John Carroll  
 HK: Albert So

### Membership Committee

Chair: Rory Smith  
 Committee: David Cooper  
 Nick Mellor  
 John Carroll

**Future Roles under consideration:**

Training & Development Lead

Online International Events Lead

MENA Codes and Standards Lead

YEN SoVT

General Executives

Please email:  
[sovt@cibse.org](mailto:sovt@cibse.org)



# New SoVT Chair

Adam Scott (VT Studio)



**New SoVT Vice-Chair**

Graham Barker (Cundall)

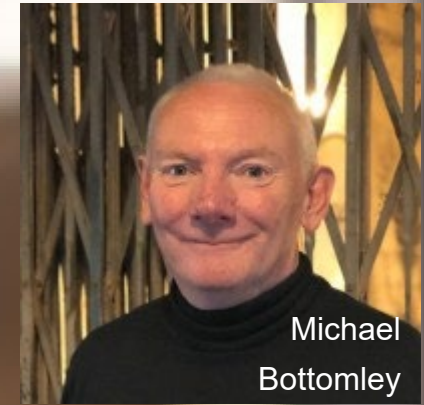
A close-up portrait of a woman with long, wavy, light brown hair. She is looking directly at the camera with a neutral expression. The background is softly blurred, showing vertical lines that suggest a window with blinds or a doorway. The lighting is even and natural, highlighting her features.

**Laura Webb**  
(LEIA MD)

# New International Representative (HK)

Dr Albert So





David Cooper MBE announced as CIBSE President Elect for 2025/26

# Questions?

# Technical Seminar 1:

# Mass Migration of Lift Alarm Connections

Matthew Davies / Chris Holmes

# Mass Migration of Lift Alarm Connections, A Case Study

Society of Vertical Transportation AGM

09/04/2028

**Vertica**  
EUROPE

 **MEMCO**  
by AVIRE

# Background: PSTN Switch Off and Lift Alarms

**Big Switch Off: ~~“All Digital 2020”~~ ~~December 2025~~ January 2027**

- **Public Switch Telephone Network (PSTN)...aka landlines, analogue copper based systems**
  - **March 2025: 5.6million copper lines remaining in the UK, with 78k being removed per week**
  - **Likely fewer than 4million copper lines remaining (2020: 14.5million)**
- **Final switch off is January 2027...**
- **Loss of analogue signaling – Analogue autodiallers rely on dual tone multi-frequency (DTMF or “touch tone”) signalling for their machine-to-machine communication needs**
- **Loss of power resilience – Reliance on mains power means that a power failure also results in a line failure**
  - **Previously failure of the telephone line itself was an extreme event and presented a low risk. With a digital telephone line, even a breaker tripping in the building could result in a loss of the line.**

# Client: Premier Inn


**UK's largest hotel chain – 85,000 hotel rooms**

- **Subsidiary of Whitbread, headquartered in the UK, with operations in the UK, Isle of Man, Channel Islands, Republic of Ireland, Germany, Austria, United Arab Emirates, and Qatar**
- **1149 passenger carrying lifts across the UK, Republic of Ireland, and the UK Crown Dependencies of the Channel Islands and the Isle of Man**
- **Lift Consultancy have been working with Whitbread since 2007:**
  - **New site projects**
  - **Modernisation & replacement projects**
  - **Model specification**
  - **Full maintenance supervision and project management**
- **Beginning in 2018 the risk posed by the PSTN switch off was flagged to the client**



# Project: Requirements

## 1100 landlines...

- **Communication Provider (CP), agreed to step away from all “lift lines”**
    - **Unable to provide a power resilience solution – specifically how they manage backup power supplies**
  - **Key requirements for any solution:**
    1. **Reliability**
    2. **Management**
    3. **Established Providers**
    4. **Fixed Costs**
    5. **Project Delivery**
- 

# Project: Requirements

## Managed Service

### 1. Reliability

- 4G VoLTE Gateway
- Non-steering roaming SIM
- On board battery backup
- Analogue signaling/analogue to digital conversation

### 2. Management:

- Monitored via an online platform: signal, power, battery status
- Battery changes every three years or as needed
- Digital audit trail of all lift connections

### 3. Established Provider

# Project: Requirements

## Managed Service

### 4. Fixed Costs\*:

- Flat monthly fee to end client.
- Lift contractor costs handled by service provider
- Equipment free issued

### 5. Project Delivery

- Installation specification ensured consistency across all sites
- Incumbent lift maintenance contractors used for deployment

- **\*25% cost saving versus a digital telephone line with voice provisioning and a power backup (without management or monitoring)**

# Project: Deployment

**1100 passenger lifts, 570 sites, four territories**

- **Single asset register**
  - **Passenger lifts**
  - **Platform lifts – case by case**
- **Rate cards agreed with incumbent lift maintenance contractors**
  - **Installs – repair teams or service visits (training as required)**
  - **Installation specification:**
    - **Gateway to be installed in the motor room or in the case of MRL installs at the top of the lift shaft or within the MRL panel if space allows**
    - **Gateway to be powered by a dedicated 230VAC supply, isolated only by the main breaker switch**
- **New connections placed into '7 Day Check List' to ensure mobile signal and power status remained stable; any issues flagged and remedial work carried out**

# Project: Challenges

## Stable mains? Signal?

- **Majority of failed '7 Day Checks' where due to mains power issues:**
  - **Engineers were connecting to mains supplies which they believe were only switched by the main breaker but were in fact switched with the shaft lighting**
- **Heathrow Terminal 4 site**
  - **Suspected interference from airport surveillance radar (ASR) towers**
  - **Solved by using directional mobile antennas facing away from the ASR towers**
- **Canary Wharf site**
  - **No mobile signal above first floor, possible signal interference form nearby transport infrastructure and/or emergency services facilities**
  - **Mounted gateways at first floor and cabled (power and comms) back up the lift wall shaft to the MRL panel...26 storeys**

# Project: Additional Insights & Ways of Working

## Telephone lines and autodiallers faults

- **Lack of asset register for telephone lines – lift engineers able to record at deployment**
- **Tracking call actively to identify faults**
- **Autodialler versus gateway - “issues with the line”**
  - **Way or working document**
    1. **Perimeters of responsibility: service provider being responsible for the gateway and the lift contractor being responsible for the autodialler on the lift car**
    2. **Fault Finding Process:**
      - a. **Gateway – remote and on-site**
      - b. **Autodialler – on-site**
    3. **Escalation process for faults which could not be rectified and authorization process for site visits**
    4. **Invoicing for work carried out**

# Conclusion: Additional Insights & Ways of Working

**Clients, consultants, contractors and suppliers working together**

- **Project delivered across**
- **Pro-actively monitored connections across the entire estate**
- **All batteries monitored and tracked for lifecycle replacement**
- **Fault resolutions co-coordinated with lift contractors to ensure only qualified persons are working on site**
- **Monitoring data now used as part of the maintenance surveillance programme for Premier Inn and in particular when assessing defects related to autodiallers on insurance reports**



Connecting &  
Protecting People

Add contact details here

# Technical Seminar 2: Artificial Intelligence in Lift Systems

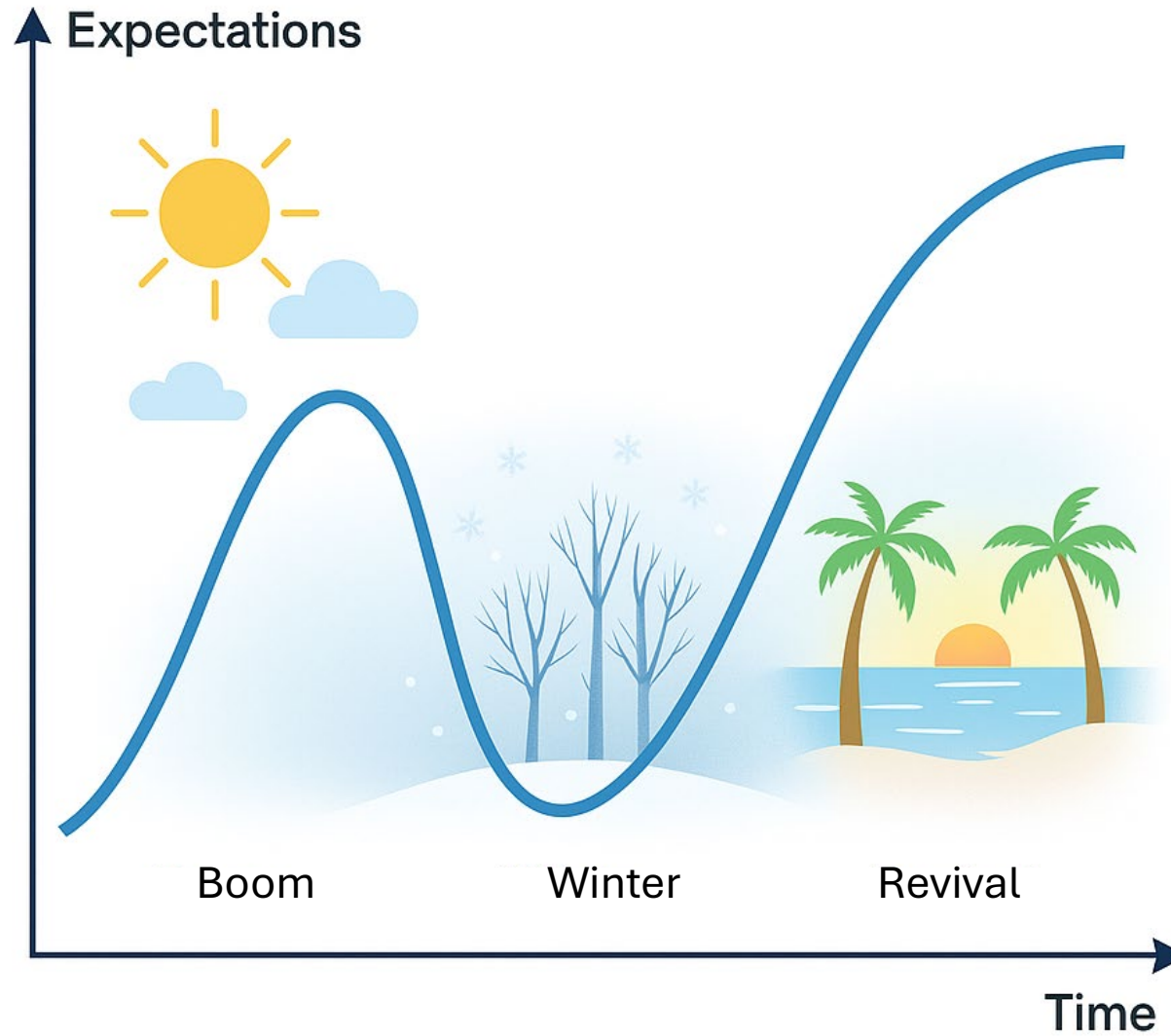
Matthew Appleby

# AI in lift systems

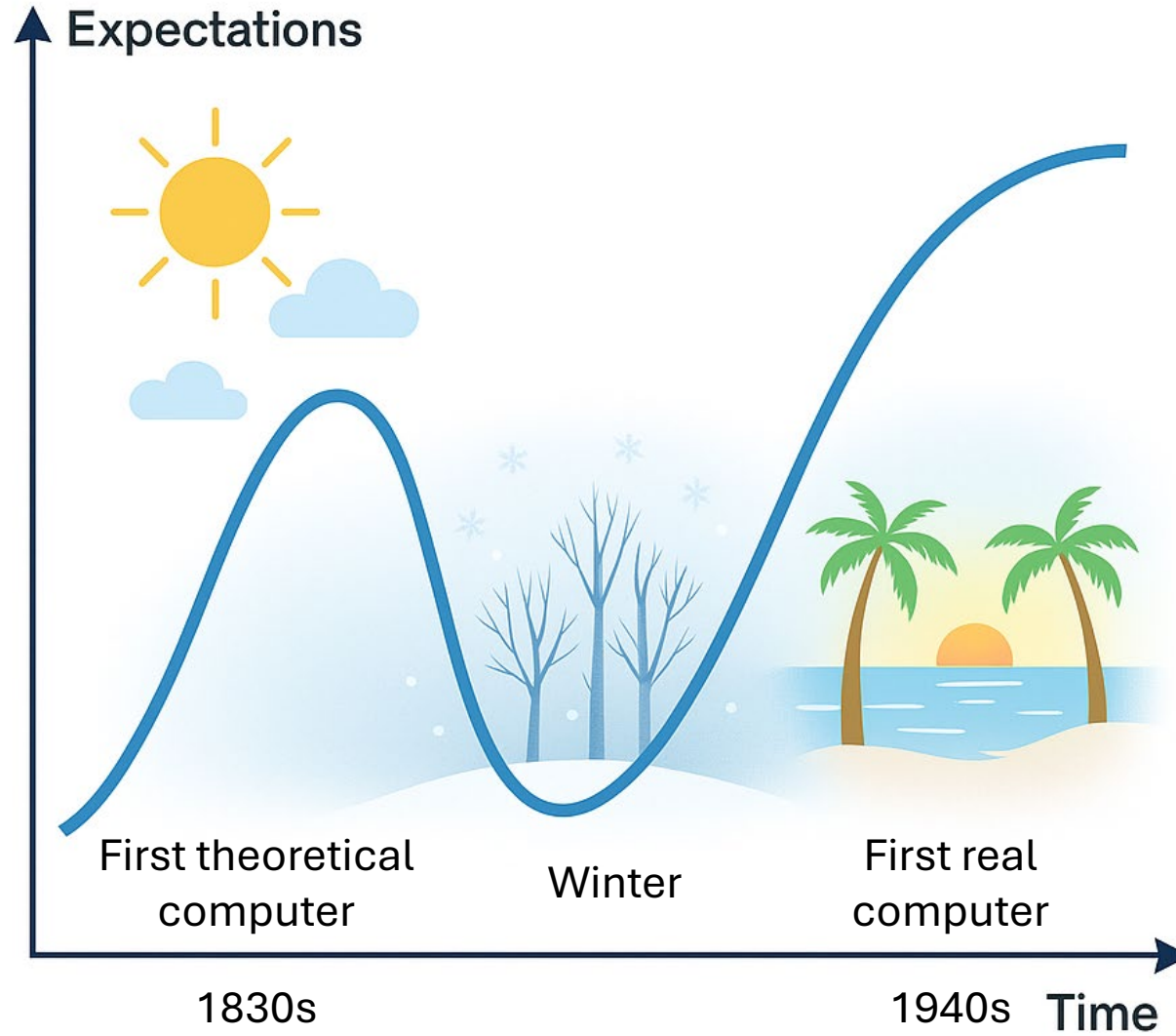
Matthew Appleby



# Technology Winter



# First computer



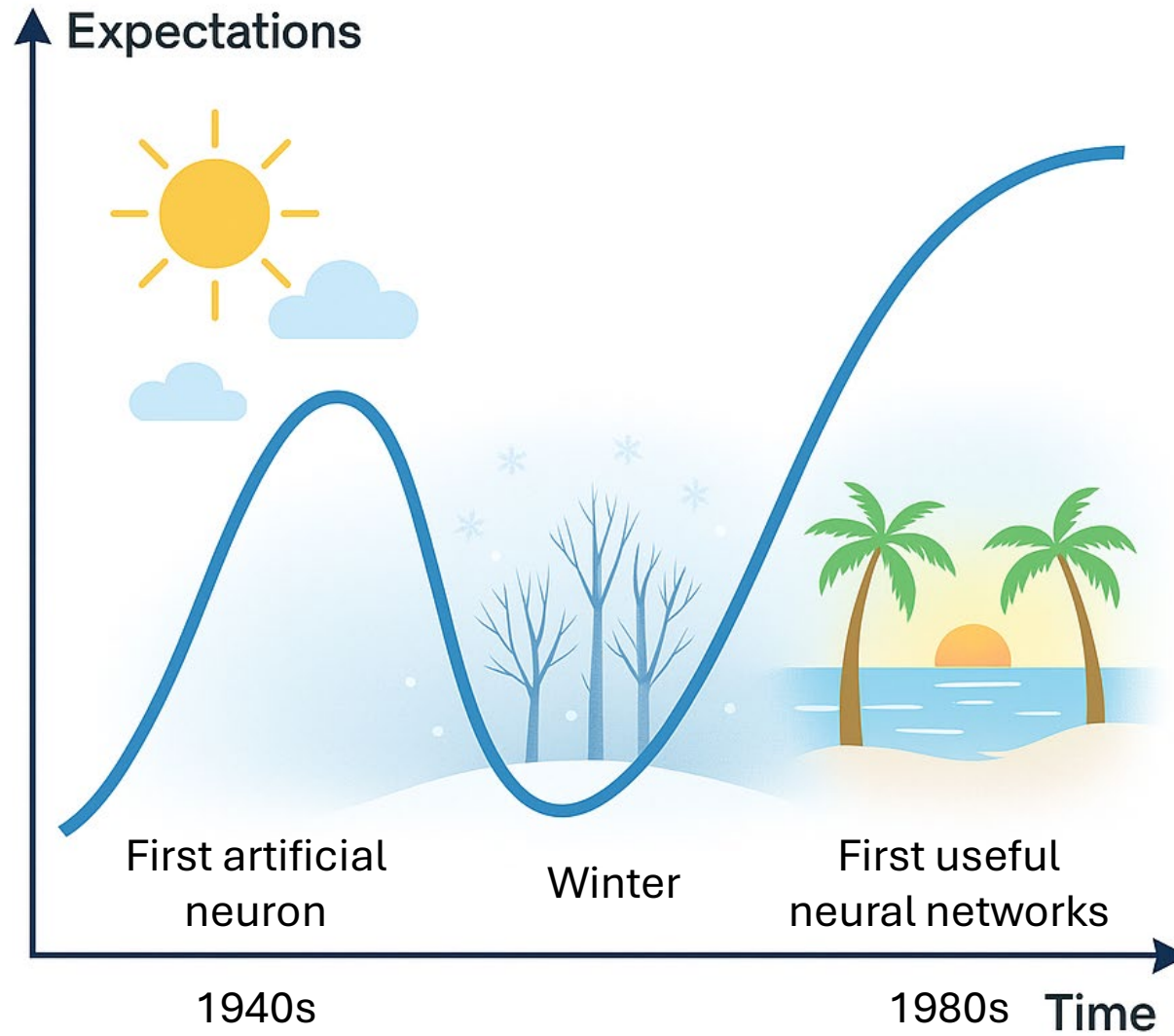
# First computer



# Who uses AI?



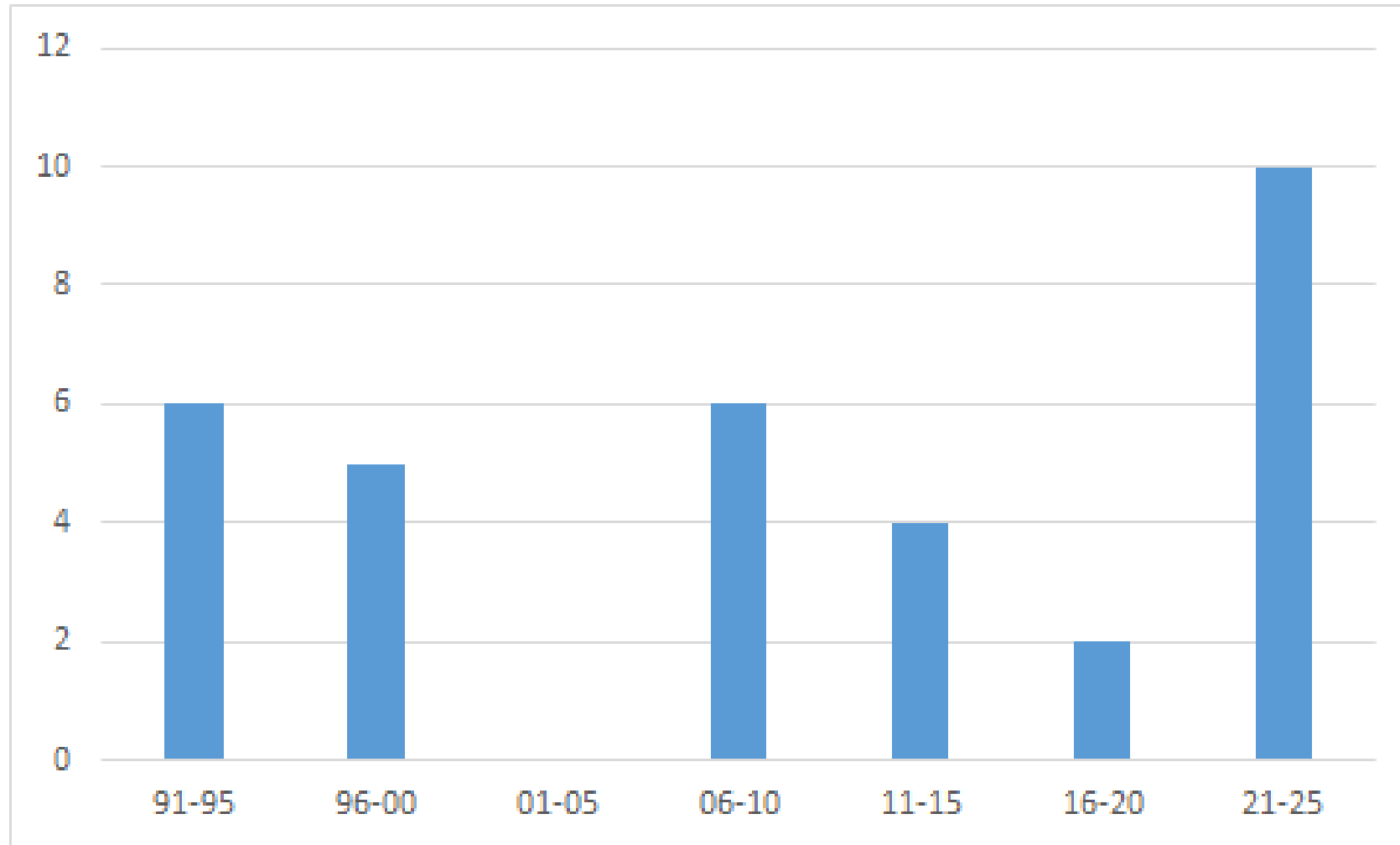
# Neural Networks



What about  
Lifts?



# Existing papers



1992	R. Prowse, D. Sirag, B. Whitehall
	Z. Deven, W. Chengdong
1993	M.L. Siikonen, M. Kaakinen
	S.I. Kawano, T. Yuminaka and N. Kobayashi
1994	S. Kubo, S. Nakai, N. Imasaki, T.
1995	A.T.P. So, J.R. Beebe, W.L. Chan, A.T.P. So, J.R. Beebe, W.L. Chan,
1996	A.T.P. So, J.R. Beebe, W.L. Chan,
1997	M.L. Siikonen
1998	C.E. Imrak, G.C. N. Tolosana, E. Larrodé, J. Cuartero, A. Miravete, J. Calvo, L. Castejón
1998	B.A. Powell, D.J. Sirag, B.L. Whitehall
2000	L. Yu, J. Zhou, S. Mabui, K. Hirasawa, J. J. Sorsa, M.J.
2006	L. Yu, J. Zhou, S. Mabui, K. Hirasawa, J.
2006	L. Yu, J. Zhou, S. Mabui, K. Hirasawa, J.
2007	L. Yu, S. Mabui, T. Zhang, K. Hirasawa
2008	Y. Ai-rong, C. Lei, H. Yi-hui
2009	Yi-hui
2010	R. Peters
2014	R. Smith
2015	R. Smith
2016	B. Langham
2018	R. Peters, S. Dean
	X. Ma, L. Chengkai, K.H. Ng, and H.P. Tan
2021	S. Kaczmarczyk, R. Smith, M. Gizioki
2022	L. Al-Sharif, R. Peters, M. Appleby
2022	Y. Hu
2023	M. Gizioki, S. Kaczmarczyk, R. M. Guidotti
2023	M. Seyyedi, A. Candaş, C.E. Imrak
2024	D. Smans
2024	L. Al-Sharif, R. Peters, M. Appleby, T.

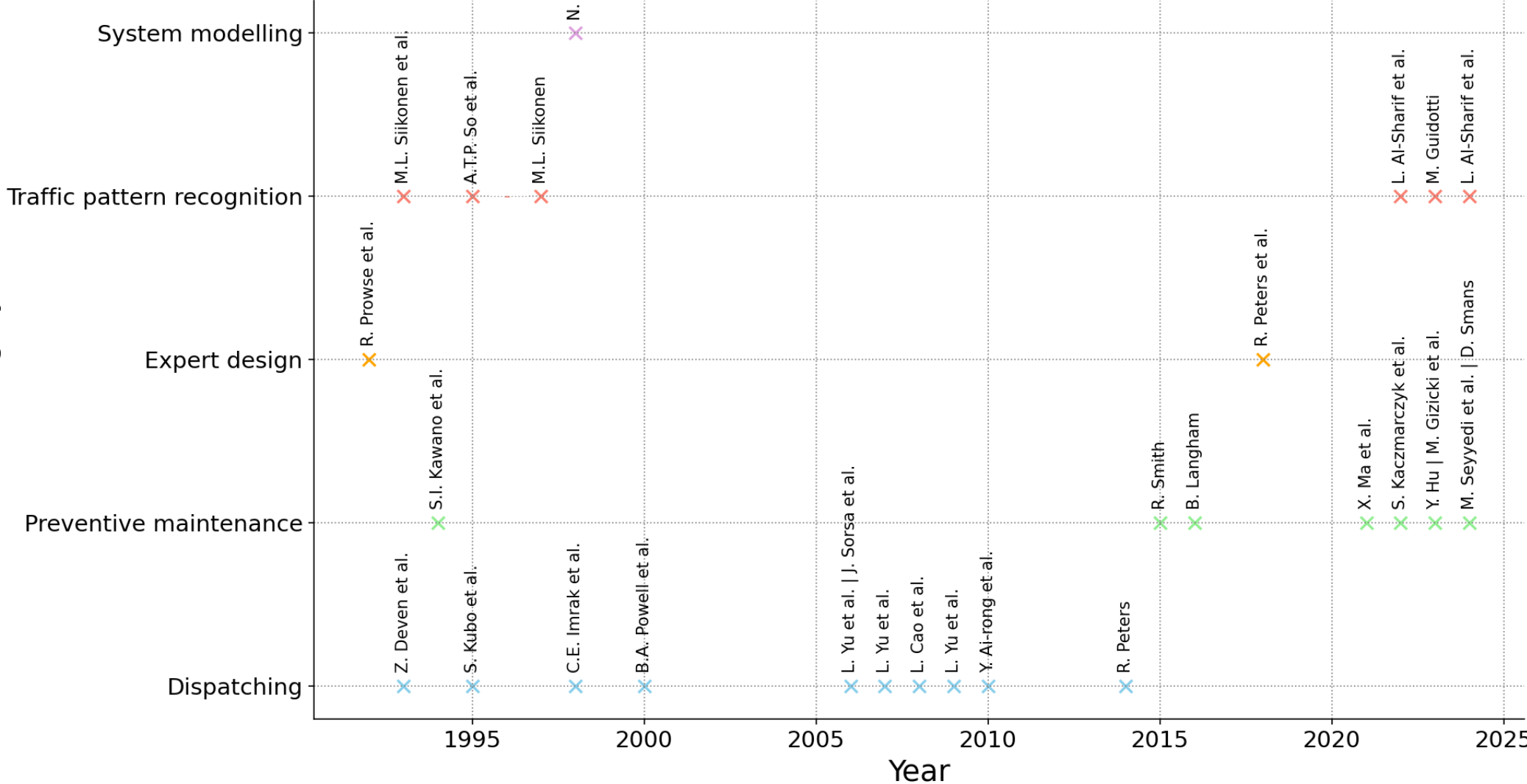
# Categories

- System modelling
- Traffic pattern recognition
- Expert design
- Preventive maintenance
- Dispatching

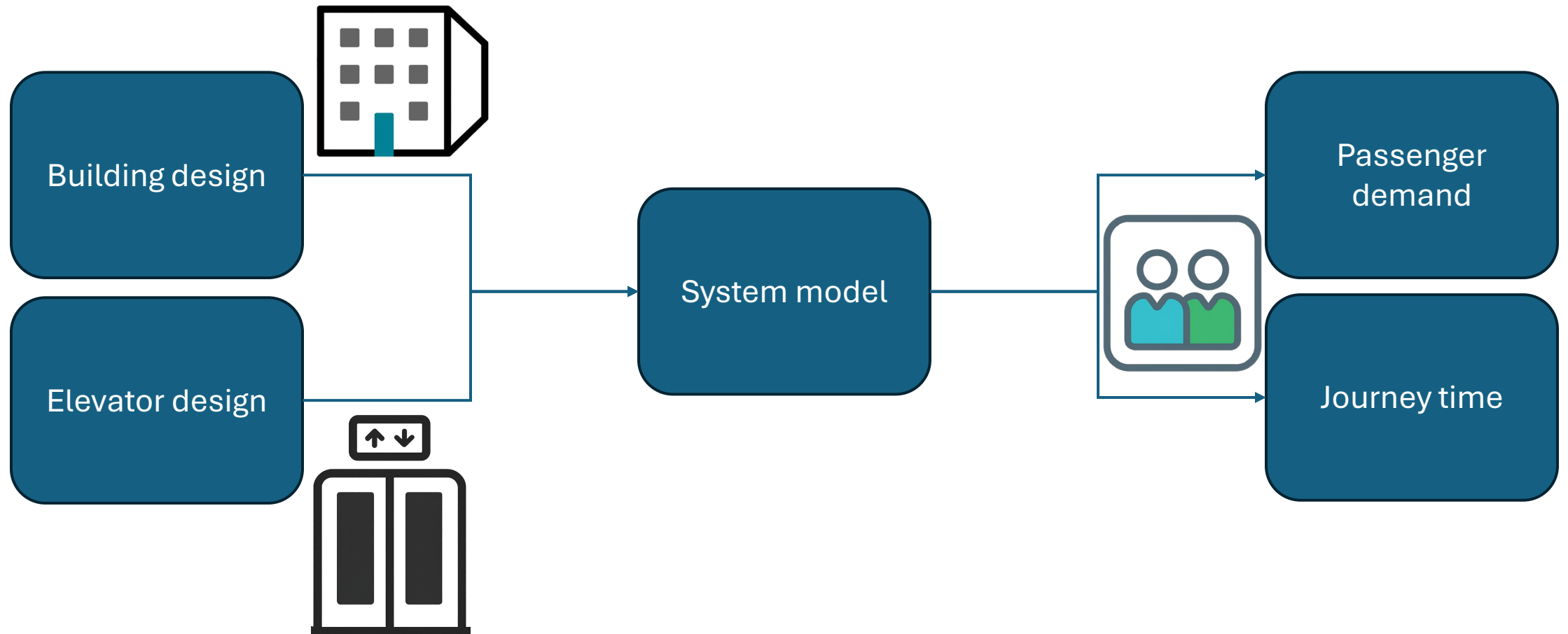
# AI in Lifts Timeline

Category

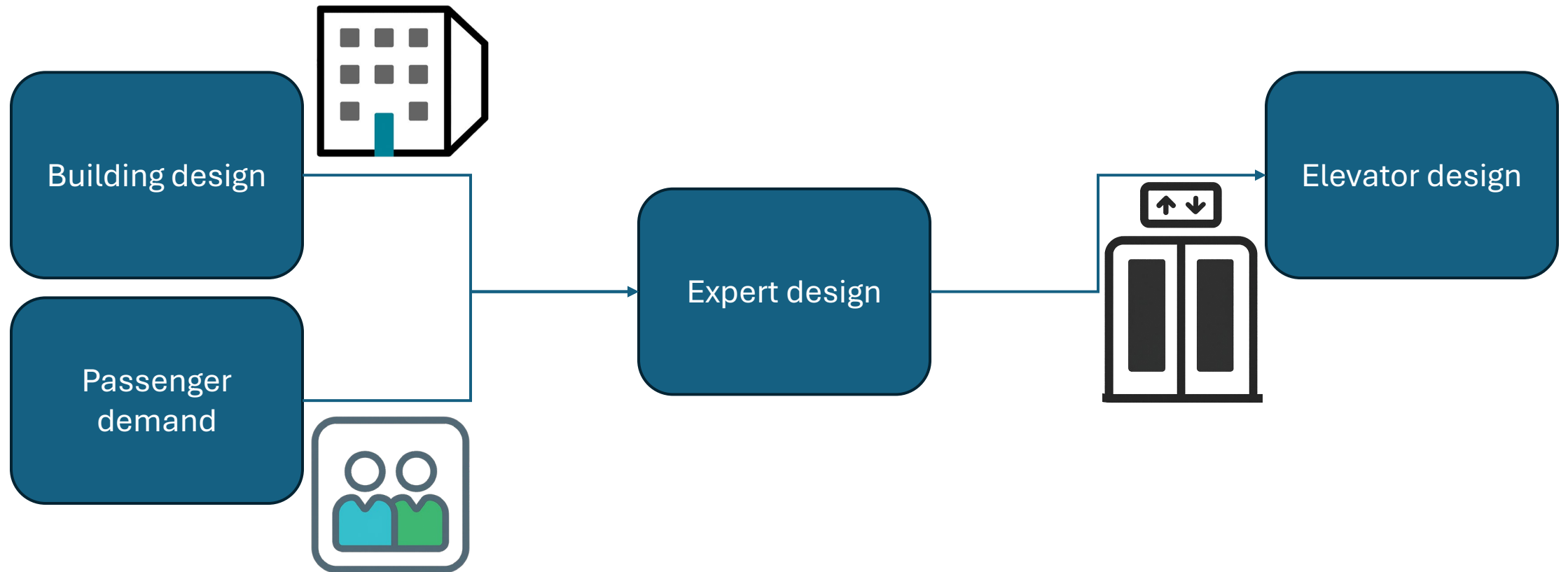
- Dispatching
- Preventive maintenance
- Expert design
- Traffic pattern recognition
- System modelling



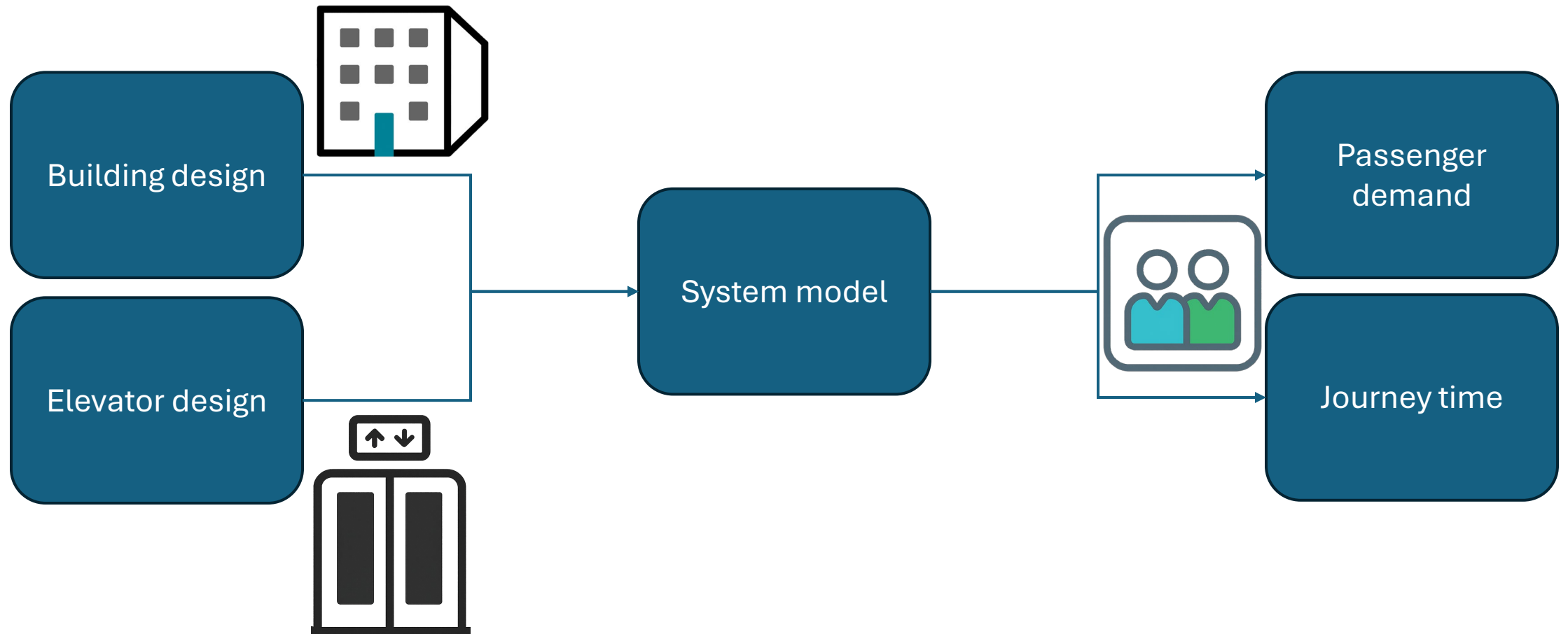
# System modelling



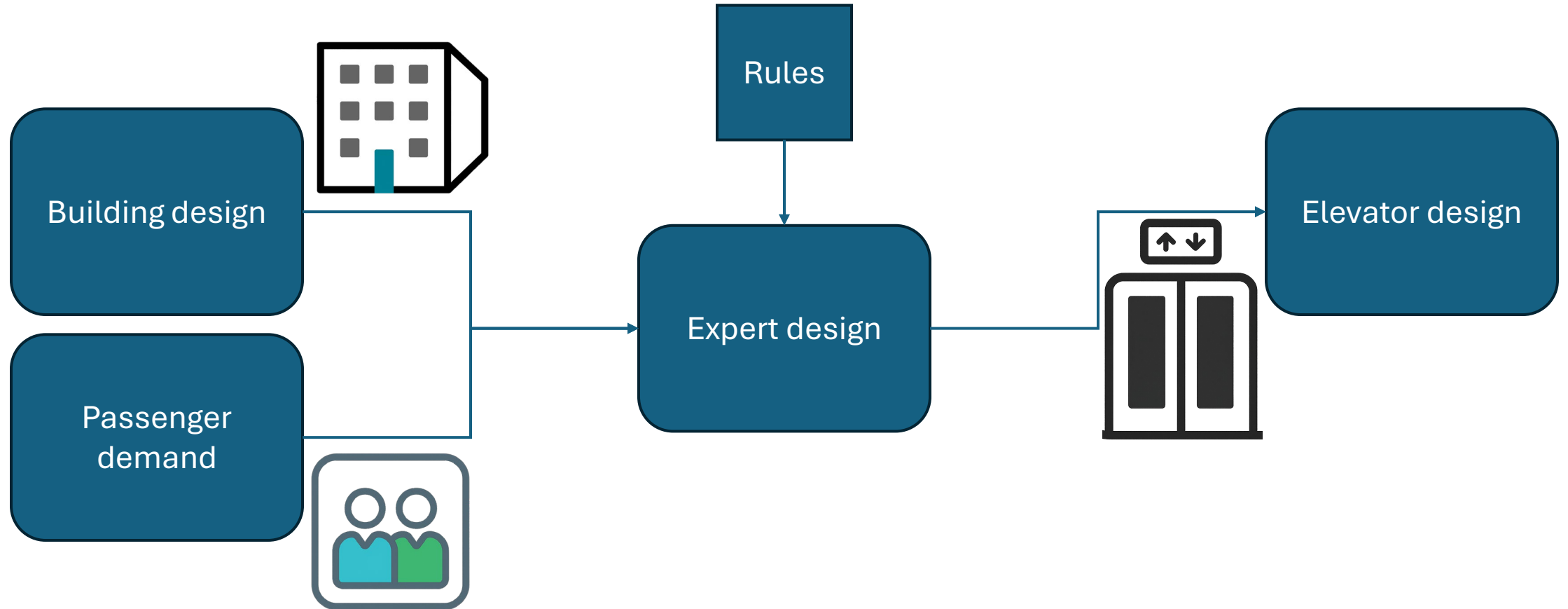
# Expert design



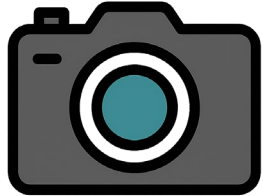
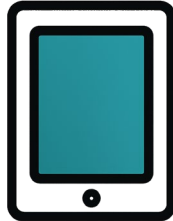
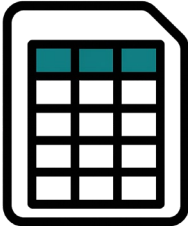
# System modelling



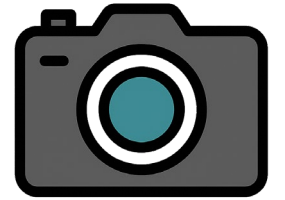
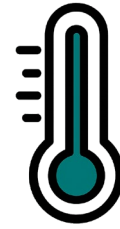
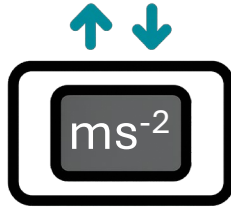
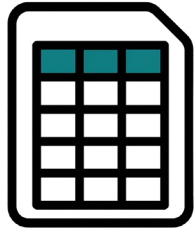
# Expert design



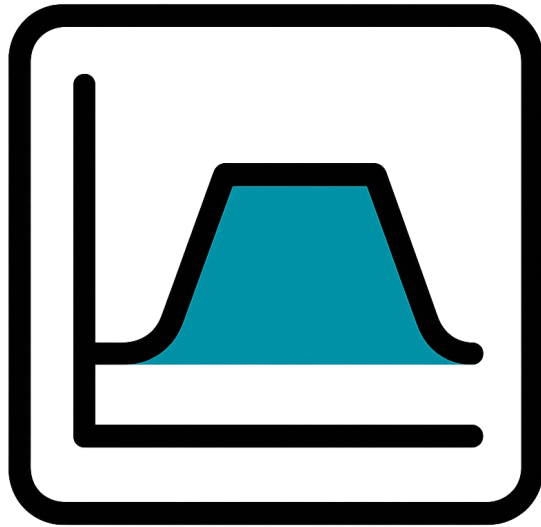
# Traffic pattern recognition



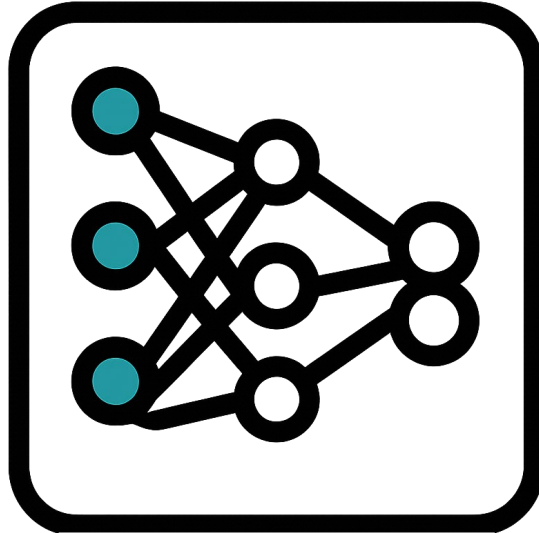
# Preventive maintenance



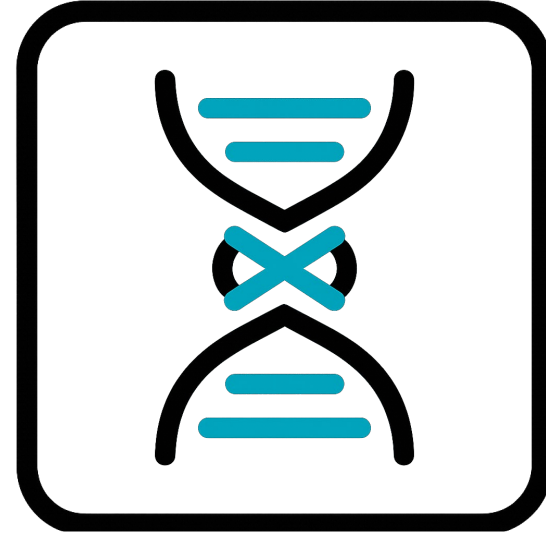
# Dispatcher



Fuzzy Logic



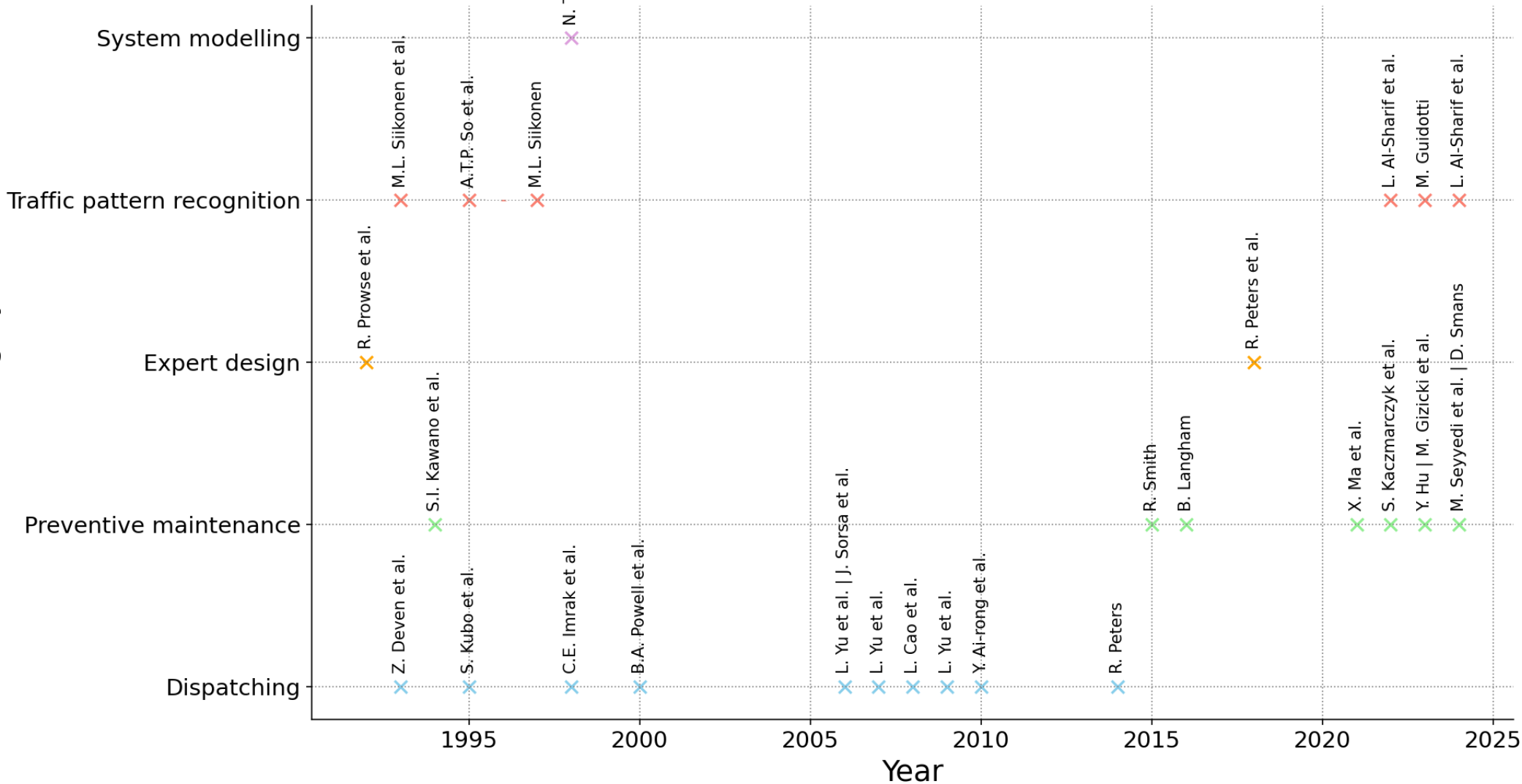
Neural networks



Genetic algorithms

# AI in Lifts Timeline

- Dispatching
- Preventive maintenance
- Expert design
- Traffic pattern recognition
- System modelling



# Ethics



The Environment



Jobs



Surveillance

Future development



# AI in lift systems

Matthew Appleby



# Technical Seminar 3:

## BS 5655-11

Nick Mellor



# BS 5655-11 – modification of existing lifts Draft for public comment

SoVT AGM and seminar Thursday 9 April 2026

Nick Mellor

# Introduction



A bit about the process of developing a British Standard

## **DPC BS 5655-11 – structure and key points**

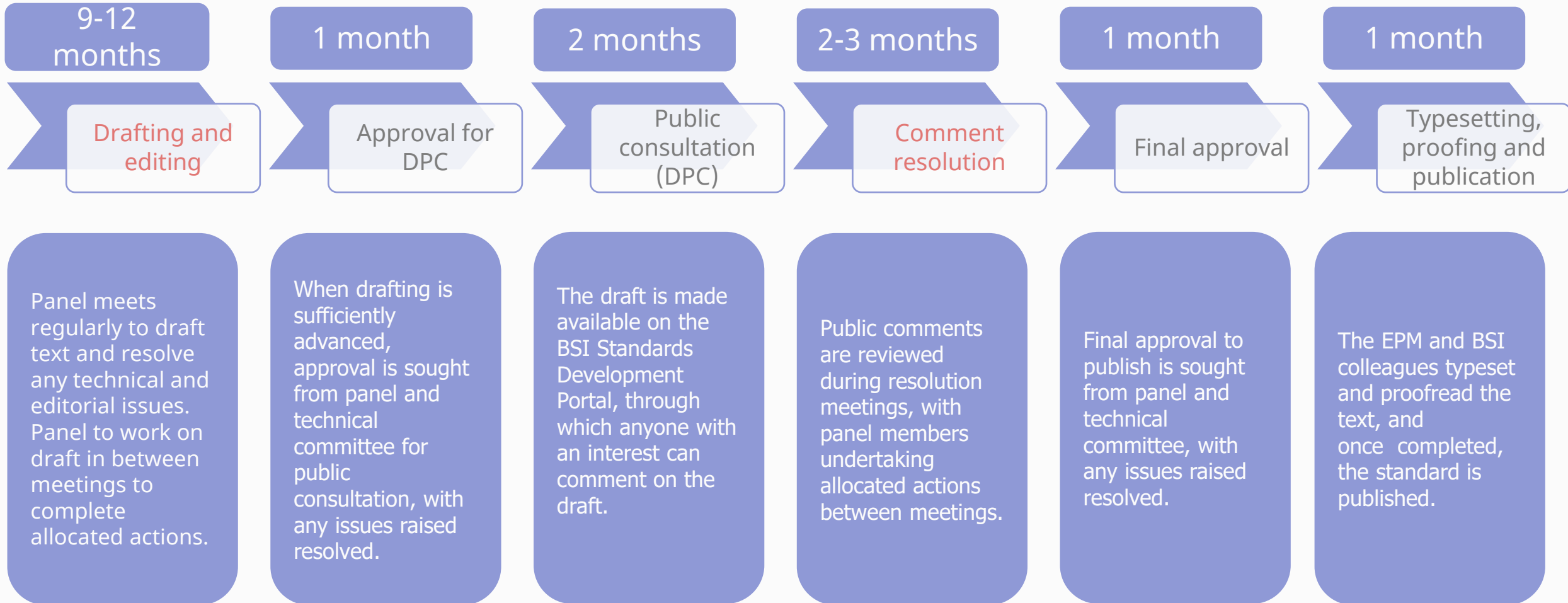
- **Introduction** – proposed link to LEIA website for further guidance
- **Scope** – some significant issues
- **Terms and definitions**
- **Clause 4** – General principles
- **Clause 5** – Modifications to specific aspects of existing lifts

**Commenting on DPC BS 5655-11 - How to make comment**

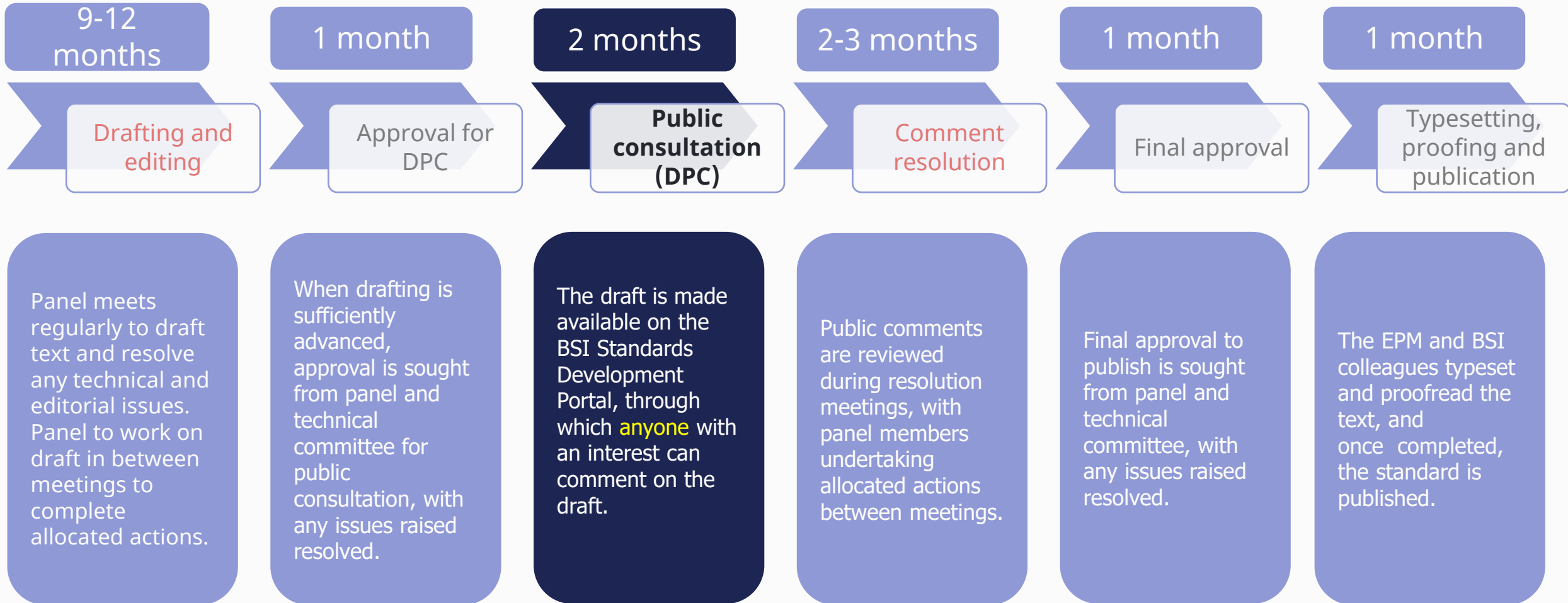
# Standards development process

- Standards development cycle
- Typical project timeline

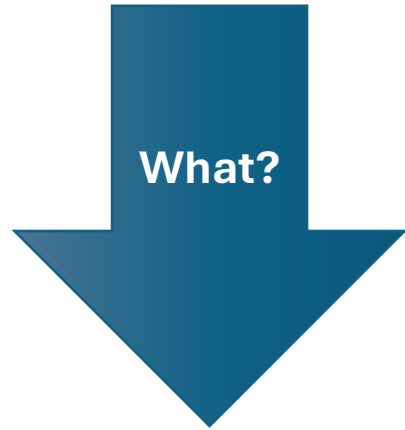
# Typical project timeline



# Typical project timeline



# Codes and standards

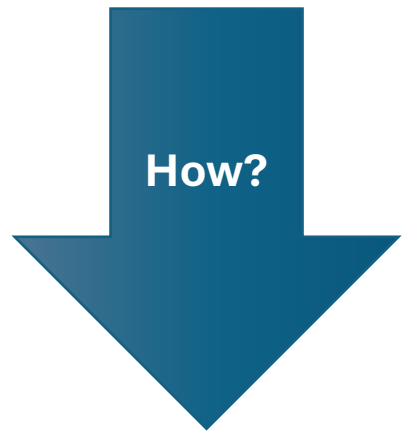


EN 81-80  
Safety

EN 81-82  
Accessibility

EN 81-83  
Vandalism

bsi.  
BS 8899  
Fire & evacuation



BS 5655-11  
Code of practice  
for the undertaking of modifications to existing lifts



# 1 Scope



“This part of BS 5655 gives recommendations for:

- a) modification of a lift, by physical or digital means, which changes the characteristics of the lift, creates a new hazard or increases risk;
- b) addition to a lift of a new part that changes the characteristics of the lift, creates a new hazard or increases risk; and
- c) replacement of a safety component or important sub-system of a lift.”

# 1 Scope



“This part of BS 5655 is not applicable to:

i) new lifts (see Note 1).....

*NOTE 1 A new lift is one where:*

- no lift previously existed, e.g. a new lift installed in a new or existing building; or*
- an existing lift has been completely replaced; or*
- an existing lift is replaced where only the existing guide rails and their fixings, or the fixings alone, are retained.*

*NOTE 2 A lift is new when made available for use as part of the construction process (also known as early beneficial use). It therefore follows that any work to the lift to enable it to be suitable for its originally intended use as detailed by the lift contractor would be one or more modifications covered by this part of BS 5655.*

*NOTE 3 A complete replacement is considered to include where the replacement is planned and undertaken in more than one stage.”*

# Clause 4 – General principles



**4.1** Overall procedure for modifications to existing lifts

**4.2** Minimum levels of safety

**4.3** Specific aspects of improvement

**4.4** Replacement components

**4.5** Health and safety file

**4.6** Risk assessment

*Table 1 – Cross-reference from BS 5655-11 to BS EN 81-20:2020 for design considerations*

**4.7** Tests and records of important modifications

*Table 2 – Cross-reference from BS 5655-11 to BS 8486-3 for testing considerations*

**4.8** Modification by digital means

**4.9** Competence

*Table 3 – Core competences for lift modification*

# Clause 5 – Modifications to specific aspects of existing lifts



- 5.1 Change of rated speed
- 5.2 Change of rated load, or change of empty car or suspended mass
- 5.3 Change of travel
- 5.4 Addition of or change to a refuge space
- 5.5 Replacement or change of suspension means
- 5.6 Change of control equipment
- 5.7 Change from manual to power-operated doors
- 5.8 Change of entrances
- 5.9 Change of a safety component
- 5.10 Change of electric safety devices
- 5.11 Change of the drive components
- 5.12 Changes to a lift car
- 5.13 Change of door operator
- 5.14 Change of guide rails or type of guide rails
- 5.15 Change of mechanical device or moveable stops
- 5.16 Change of platform
- 5.17 Change of emergency and test operation devices

# Commenting on DPC BS 5655-11



A screenshot of a web browser displaying the BSI Standards Development website. The browser's address bar shows the URL 'https://standardsdevelopment.bsigroup.com/projects/2024-00910'. The page header includes the BSI logo and 'Standards Development' text, along with contact information: '+44 345 086 9001', 'Contact us online', and 'Register / Login'. A navigation menu contains 'Home', 'Categories', 'About', and 'Help', followed by a search bar with a 'Search' button. The main content area is titled 'BS 5655-11 Lifts and service lifts - Part 11: Modifications to existing lifts - Code of practice'. It lists details such as 'Source: BSI', 'Committee: MHE/4 - Lifts, hoists and escalators', 'Categories: Lifts, Escalators', 'Comment period start date: 10/02/2026', 'Comment period end date: 10/04/2026', and 'Number of comments: 3'. A 'Scope' section follows, with a list of three items (a, b, c) describing modifications to lifts. To the right, a 'Standard timeline' section shows three stages: '1. Proposal (Complete)', '2. Draft (Complete)', and '3. Public Comments'. The 'Public Comments' section includes 'Public Comments start date: 10/02/2026' and 'Public Comments end date: 10/04/2026'. A 'Comment by: 10th Apr' box is also visible.

<https://standardsdevelopment.bsigroup.com/projects/2024-00910>

# Commenting on a DPC BS 5655-11

Add comments

Add a new comment to **Introduction**

Required form fields are indicated by an asterisk (\*) character

Comment on this section \*

**B I U**  $\times^2$   $\times_2$   $\mathcal{I}$   $\equiv$   $\equiv$

Proposed changes \*

**B I U**  $\times^2$   $\times_2$   $\mathcal{I}$   $\equiv$   $\equiv$

Comment type\*

By submitting comments you agree to the [Terms and conditions](#)

Saved comments are only visible to you and can be edited multiple times before submission. Once submitted, they become visible to all users and cannot be modified.

- Commenting online (easy to register)
- <https://standardsdevelopment.bsigroup.com/projects/2024-00910>

make a **comment** to explain why with justification the text should be improved

make a **proposal** for the improvement to address the comment made

- All comments submitted must be considered by the revision panel
- **Draft text may only be revised in response to comments received**



## Clause 4 General principles

# Clause 4 – General principles



**4.1** Overall procedure for modifications to existing lifts

**4.2** Minimum levels of safety

**4.3** Specific aspects of improvement

**4.4** Replacement components

**4.5** Health and safety file

**4.6** Risk assessment

*Table 1 – Cross-reference from BS 5655-11 to BS EN 81-20:2020 for design considerations*

**4.7** Tests and records of important modifications

*Table 2 – Cross-reference from BS 5655-11 to BS 8486-3 for testing considerations*

**4.8** Modification by digital means

**4.9** Competence

*Table 3 – Core competences for lift modification*

# 4.1 Overall procedure for modifications to existing lifts



When modifications are being made to a lift, the following procedure should be adopted.

- a) The owner should have the lift surveyed for safety (following the recommendations in BS 7255:2023, 4.1) and for other aspects to be improved (see 4.3).
- b) A lift engineering survey should be undertaken and the scope of work for the modification agreed between the owner and the lift contractor. The owner should advise of any changes and make available details of building-related conditions (see 3.1) needed by the lift contractor. The lift contractor should declare where the building-related conditions are made more onerous as a result of the modification. The owner should verify that the building meets those conditions, and take appropriate action if it does not (which could include not undertaking the proposed modification).

*NOTE 1 The lift engineering survey is to gather sufficient information on the lift site and any constraints to enable the modification work to be designed (see 4.6, Table 1).*

- c) A risk assessment (see 4.6) should be undertaken for the proposed modification(s).
- d) A record of the modification(s) should be compiled and retained.
- e) Prior to putting the lift back into service, the replacement components, and all other parts that have been affected, should be tested (see 4.7).

# 4.1 Overall procedure for modifications to existing lifts



- f) A record of the tests undertaken before placing the lift into service should be retained.
- g) Updated information should be provided to the owner where the change will affect the user or maintenance procedures described in the original owner's manual.
- h) A record of the modification(s) should be provided for inclusion in the logbook that was issued to the owner when the lift was new.
- i) Any notice displaying the rated load and number of persons [BS EN 81-20:2020, 5.4.2.3.2d) and e)] should either be retained or, if the notice is removed, the details should be included on a new notice.
- j) For important modifications (see 4.7), a notice should be fixed to the lift containing the date of modification work, the name and contact details of the lift contractor completing the modification work, and any revised details according to 5.2.1n).

When modifications are being made to an existing CE or UKCA marked lift, the original CE/UKCA marking notified body number and lift identification number, where appropriate, should be retained.

# 4.4 Replacement components



## COMMENTARY ON 4.4

*This part of BS 5655 covers replacement parts falling into the following three categories:*

- *identical replacement (see 3.7.1);*
- *manufacturer's direct replacement (see 3.7.2), which the original lift manufacturer might offer where an identical replacement is no longer available or suitable; and*
- *a replacement not falling into either of the two previous categories.*

*Even where components are replaced as identical replacements or manufacturer's direct replacement, it might be necessary to undertake a full risk assessment and design engineering, and/or to complete relevant testing (see 4.7).*

# 3 Terms and definitions



## 3.7 replacement (of a component)

### 3.7.1 identical replacement

replacement with a component from the same manufacturer and with the identical part number as the original component

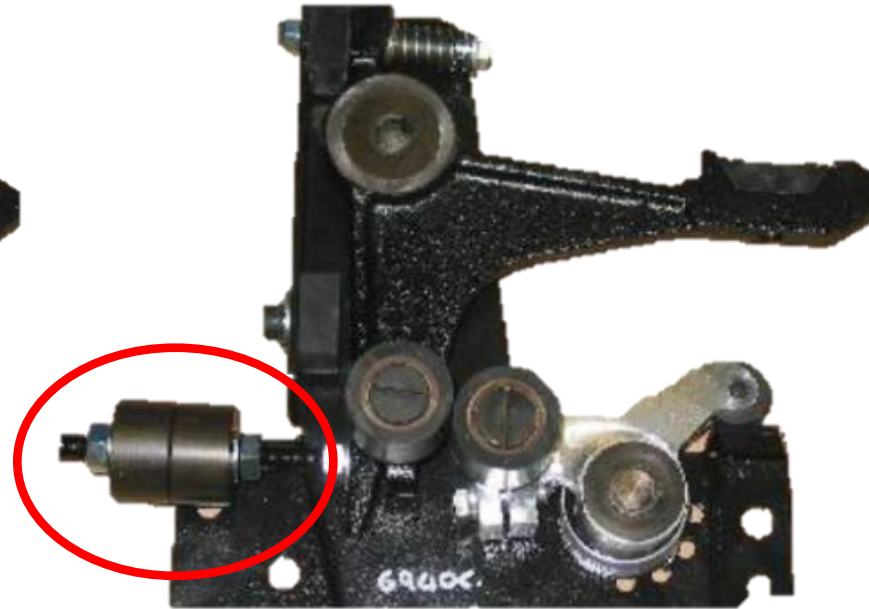
### 3.7.2 manufacturer's direct replacement

replacement with a component that does not meet the definition of an identical replacement (see 3.7.1) but that the manufacturer of the original component declares as being a compatible replacement for the original component

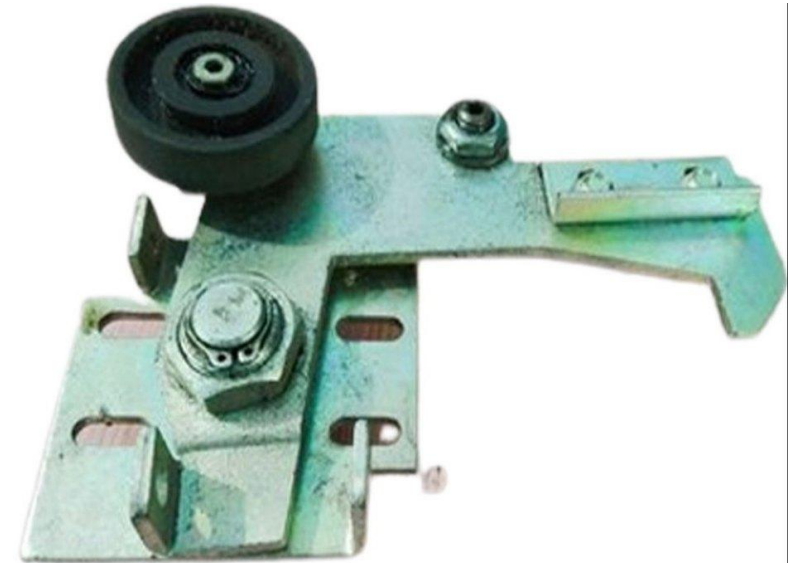
# What would you consider as an identical replacement?



- Part XYZ123 replaced by Part XYZ123 – **Identical replacement**



- Part XYZ123 replaced by Part XYZ999 – **Manufacturer's direct replacement**



- Part XYZ123 replaced by Part ABC789 –
- **Neither an Identical replacement nor a manufacturer's direct replacement**

## 4.9 Competence



Persons (including organizations) involved in any part of the modification process, from initial specification of owner's requirements to verification, test and returning a lift to service, should:

- a) possess the organizational capability to fulfil the role they are appointed to undertake;
- b) possess, or have access to individuals possessing, the necessary training, skills, knowledge and experience to carry out the work;
- c) identify the range of competences required for the modifications to be made and determine that they have relevant competence to complete the work, including the core competence criteria given in Table 3;
- d) identify the competences required by persons able to make modifications, including by digital means, including recognizing the implications of making such changes; and
- e) understand the limits of their competence and only undertake tasks at the level appropriate to their ability, unless they are supervised and supported by another appropriately competent person.

Competence	Aspect of project			
	Survey and agreement of scope of work	Design and engineering of modification	Installation and on-site works	Test and verification
Understand the implications for different stages of the modification work from legislation relating to products, health and safety, and building.	Y	Y	Y	Y
Understand and apply standards and guidance relevant to the specification of improvements, e.g. BS EN 81 series, BS 5655 series, BS 7255, BS 8899.	Y	Y		Y
Understand and apply standards relevant to the design of the modifications, e.g. BS EN 81 series, BS 5655-11.		Y		Y
Understand lift auditing and surveying techniques, recording details of the lift and gathering details needed to support design.	Y	Y		
Understand lift building interface requirements and identify implications of modification work for building regulations compliance.	Y	Y		Y
Understand any role of the lift for accessibility to the building and identify the implications of modification work for building regulations compliance.	Y	Y		Y
Understand the role of lift landing doors in resisting the spread of fire and identify when modification work might affect the building's passive fire protection measures.	Y	Y	Y	Y
Understand any specification of the lift for use by firefighters or for evacuation and identify the implications of the modification work to compliance.	Y	Y		Y
Communicate with those responsible on relevant building interface issues.	Y	Y	Y	Y
Understand the technologies to be used, e.g. electrical, electronic, mechanical, hydraulic, software and IT, and how these would be incorporated into the lift.		Y		
Understand retained lift equipment and how new equipment would interface with it, and be able to specify new parts and systems accordingly.		Y		
Understand and be able to complete any calculations required, including for loadings on the building, guide rail stress and deflection, traction and suspension factor of safety.		Y		
Understand and apply risk assessment to support the safety of the modification design.		Y		
Understand and apply risk assessment to identify verification and testing procedures.		Y	Y	Y
Plan the sequence of site-based work based on risk assessment of the activities.		Y	Y	Y
Have the relevant skills, knowledge, experience and behaviours in installation, maintenance, repair and on-site modification.			Y	
Have the relevant skills, knowledge, experience and behaviours in carrying out testing operations on new and existing lifts and in testing and verification of modification work.				Y
Understand and apply standards for testing relevant to the modification work, e.g. BS 5655-10.1.1, BS 5655-10.2.1, BS 8486 series, BS 8899.				Y
Understand the limits of their competence, and when asked to do something outside their competence, take relevant steps such as seeking help or declining to undertake the work.	Y	Y	Y	Y
Understand the importance of continuing professional development (CPD) in relation to their work and keep their competences up to date with latest developments relevant to the scope of work undertaken.	Y	Y	Y	Y



**Table 1 – Core competences for lift modification**

Competence	Aspect of project			
	Survey and agreement of scope of work	Design and engineering of modification	Installation and on-site works	Test and verification
Understand the role of lift landing doors in resisting the spread of fire and identify when modification work might affect the building's passive fire protection measures.	Y	Y	Y	Y
Understand and be able to complete any calculations required, including for loadings on the building, guide rail stress and deflection, traction and suspension factor of safety.	—	Y	—	—
Understand and apply risk assessment to support the safety of the modification design.	—	Y	—	—
Understand and apply standards for testing relevant to the modification work e.g. BS 5655-10, BS 8486 series, BS 8899.	—	—	—	Y





Thank you for listening

PS We have ca 29 hours 29 minutes remaining to comment on the DPC for BS 5655-11....



# Chair Close

Adam Scott (VT Studio)

# Networking and...

## Future Vision Survey

The SoVT is committed to knowledge sharing. Help us shape the future by sharing your thoughts on how we can grow, engage, and lead the industry more effectively. The survey should take no more than 7 minutes to complete.

Take the survey →



## SoVT Membership Grades

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- Affiliate
- Correspondent
- Licentiate (LSoVT / LCIBSE)
- Associate (ASoVT / ACIBSE)
- Member (MSoVT / MCIBSE)
- Fellow (FSoVT / FCIBSE)



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