



RĪGAS TEHNISKĀ
UNIVERSITĀTE

IMPORTANCE OF MAINTENANCE PHASE IN MULTI-APARTMENT RESIDENTIAL BUILDINGS

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JEL Classification: Q51, Q56, L74.

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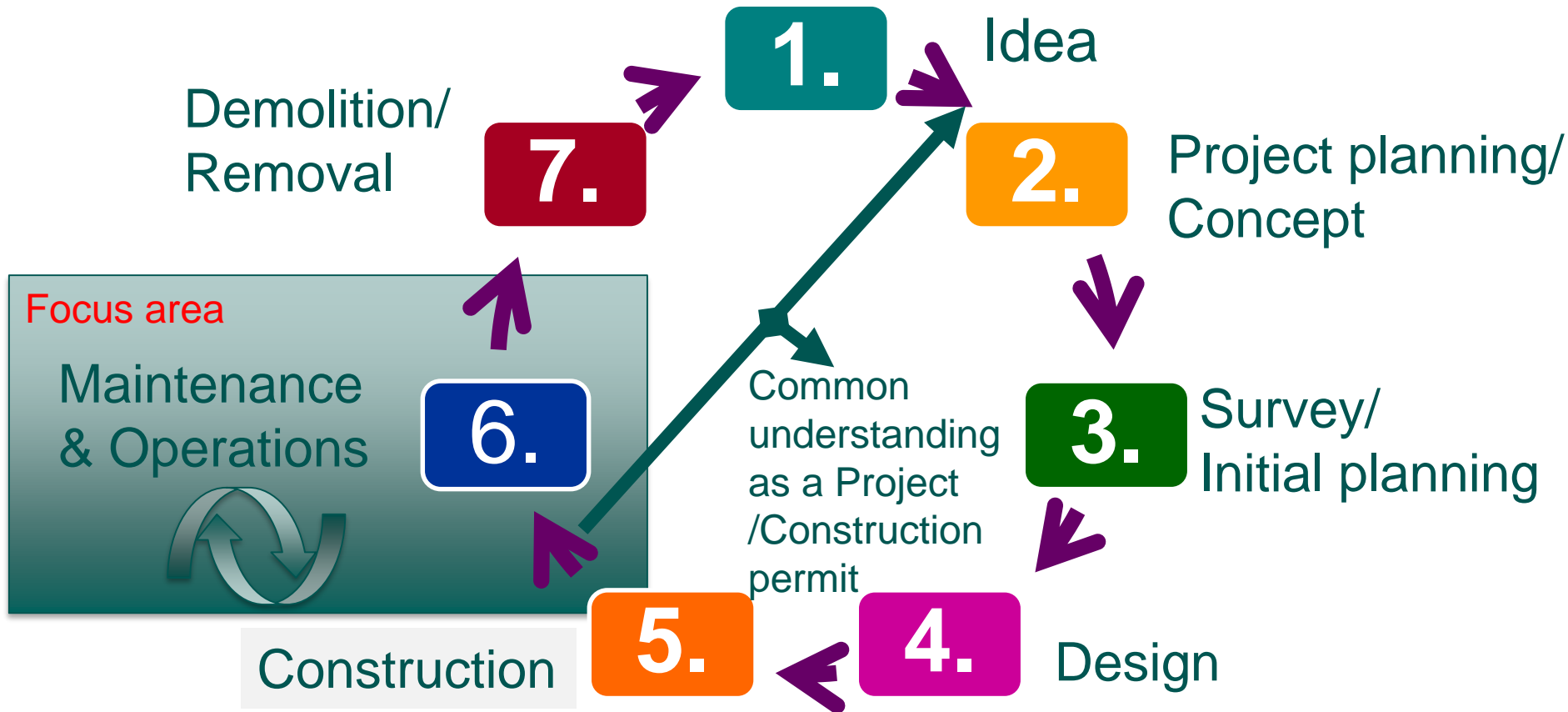
Background

- **Maintenance** of a multi-apartment residential buildings is crucial part of the **multi-apartment residential building lifecycle**.
- During maintenance phase **building manager** should act on three main activity types from planning viewpoint.
 1. At first, plan and proceed with **planned long-term** repairs, what are due technical parameters and usable life-time of the materials and technologies used in construction and maintenance during previous periods
 2. Another source to plan and act are **tasks and repairs** needed on a period of about a year.
 3. Third source is to act on problems identified during planned or unplanned **inspection** due to some **incident** if not solved during incident event.

All identified activities have to be included in maintenance plan of an upcoming period for approval and delegation of finances.

CONSTRUCTION LIFE CYCLE

Analysis, basic links and transformation to Project



Advancements to improve building's sustainability aspects have to be analysed for a need to plan and apply for construction permit due to the scope of works and complexity

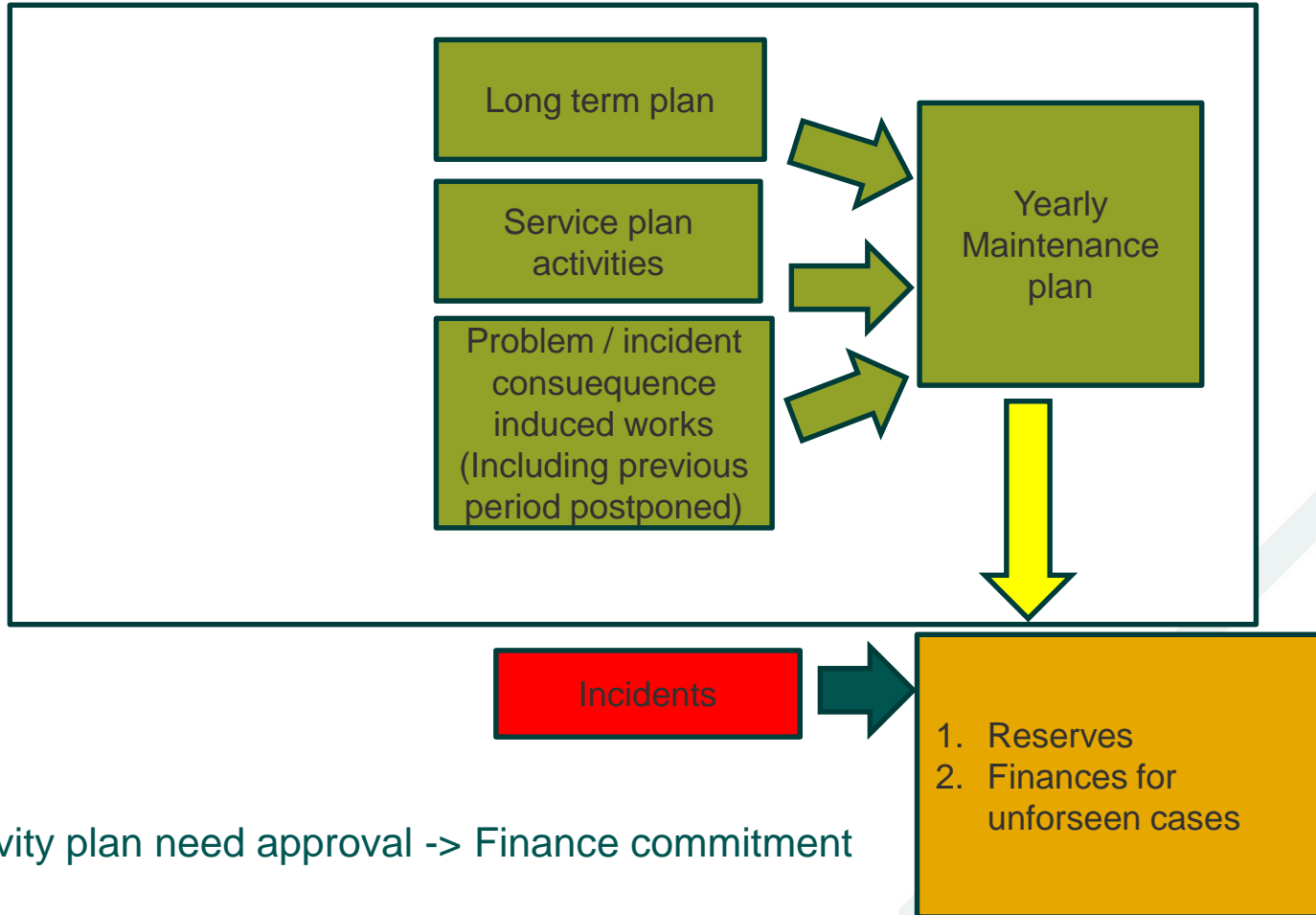
Hyphotesis, Research Focus

- **Improving** building's technical condition leads **closer** to **climate neutral building** with reduced carbon footprint in full lifecycle.
- Research is aimed at identifying critical aspects with significant impact on **decision-making for sustainability improvements** during **maintenance** phase in multi-apartment residential buildings.
- Research results identify that important **obstacles** for renovation in Latvia are hindering incentive approval for improvement.

Basis of Yearly Maintenance plan

Simplified view - planning

Long term plan = Climate aspects and improvements

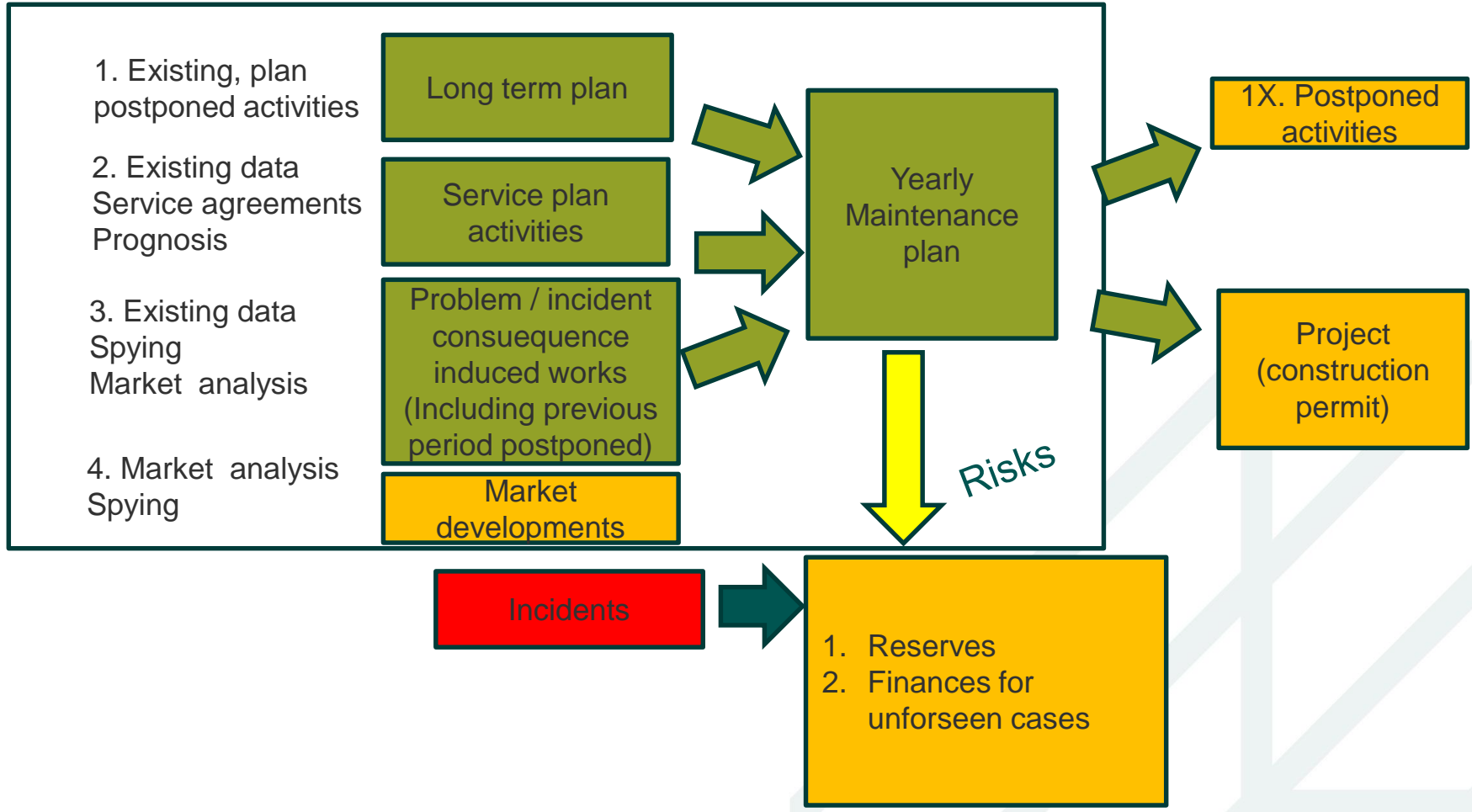


Stakeholders and Decision Making Challenges

- Management company **can initiate** a suggestion to **decision makers** for a review and approval of improvements.
- Approval of maintenance plan also is **commitment** for funds needed for implementation of planned activities.

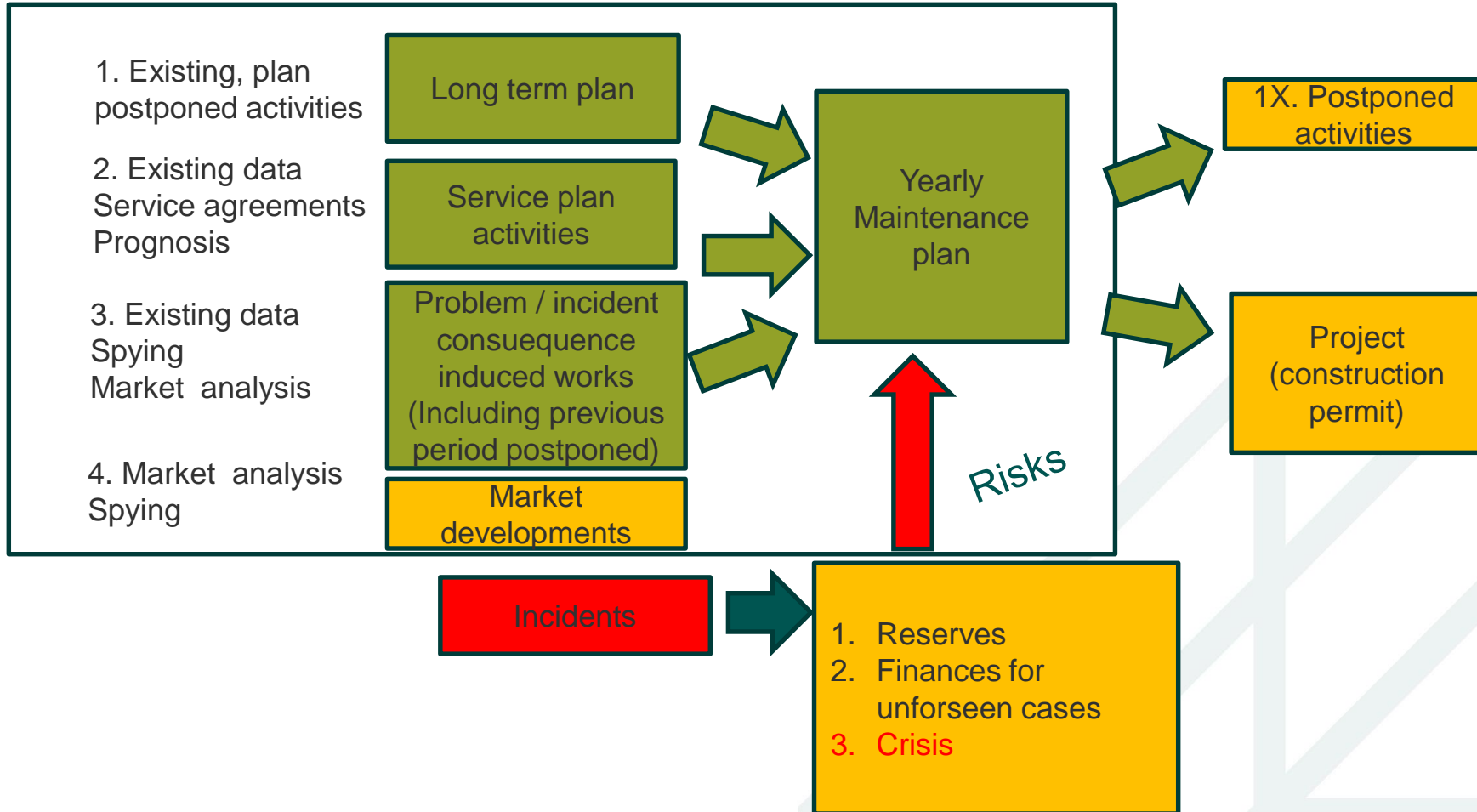
Decisions and Sources of Yearly Maintenance plan

Sources for activities



Execution and Linking to Long Term Planning

Link to next periods and incidents



Identified Obstacles to Approve Improvement Activities and Main Recommendation

- **Feasible financing** options for owners,
- **Complex approval** of decision for renovation,
- Discrepancies of owner's **perception** on **short-term and long-term** benefits,
 - especially if ownerships are split.

Thus, renovation process in Latvia is stagnating.

Authors recommend to develop and implement means to increase environmental awareness and to clarify long-term perspective's economic and environmental benefit

Thank you for attention!