

Motiva

Energiankäytön uusi suunta

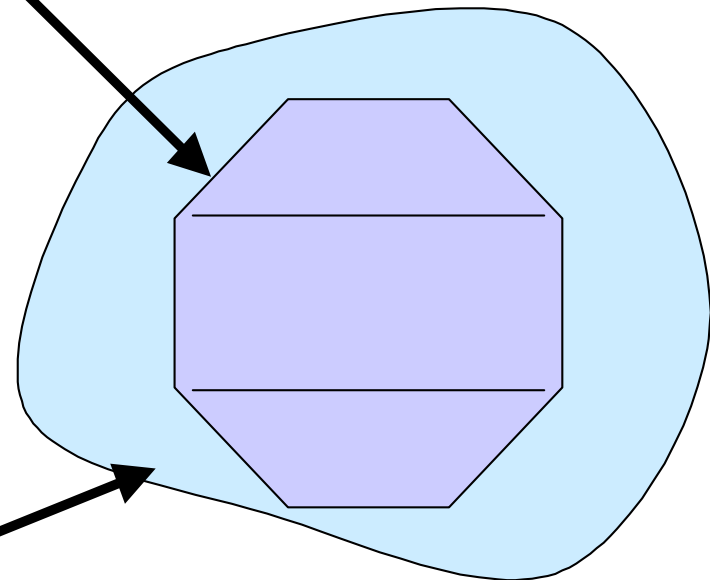
The Energy Audit Procedure

Different Energy Audits

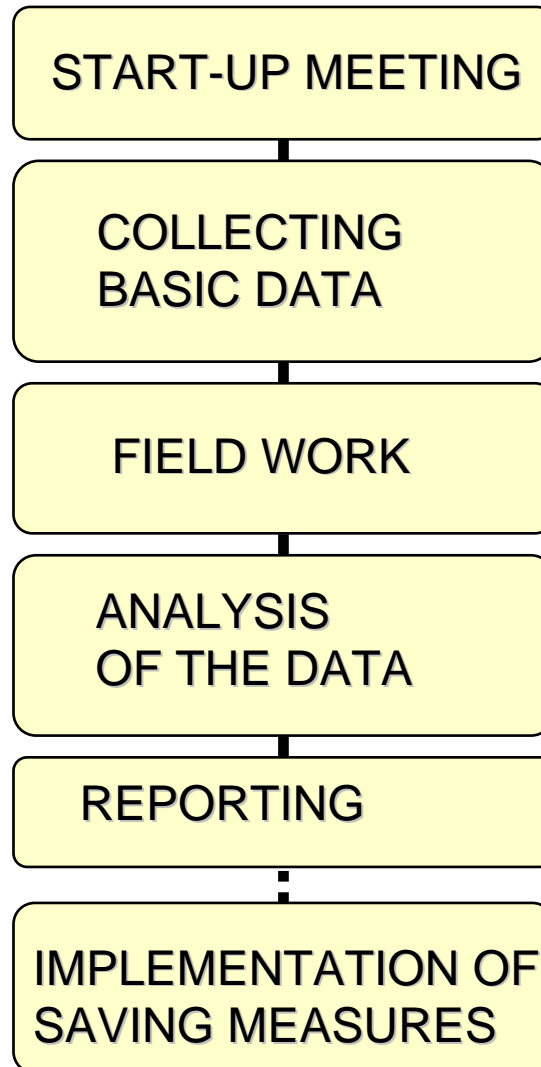
THE CORE
AUDIT

- evaluating the existing energy consumption
- identifying the saving measures
- reporting the results

THE
AUDIT MODEL



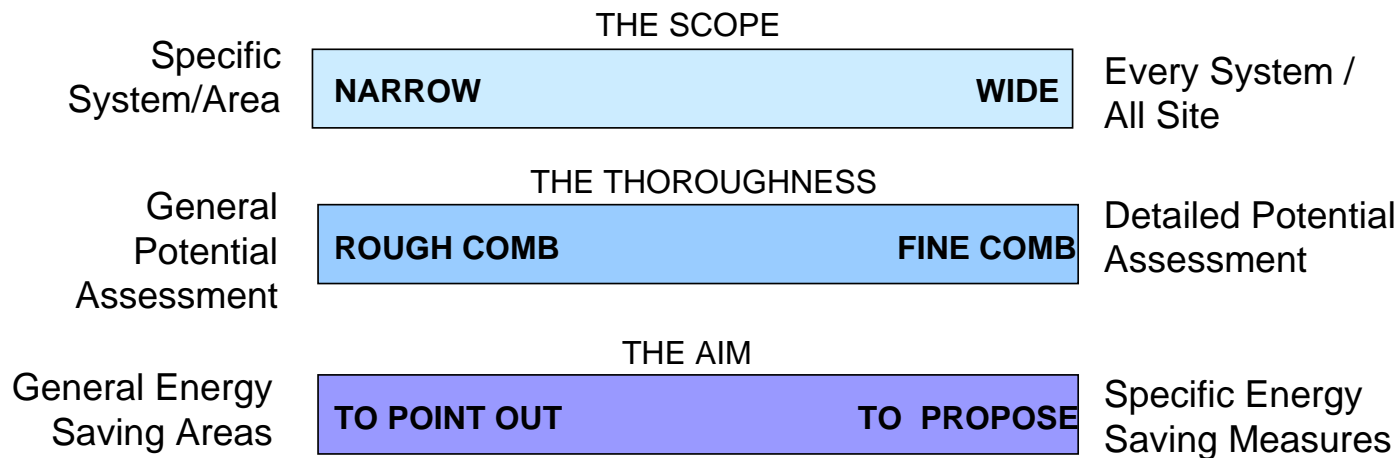
Energy Audit Procedure in general



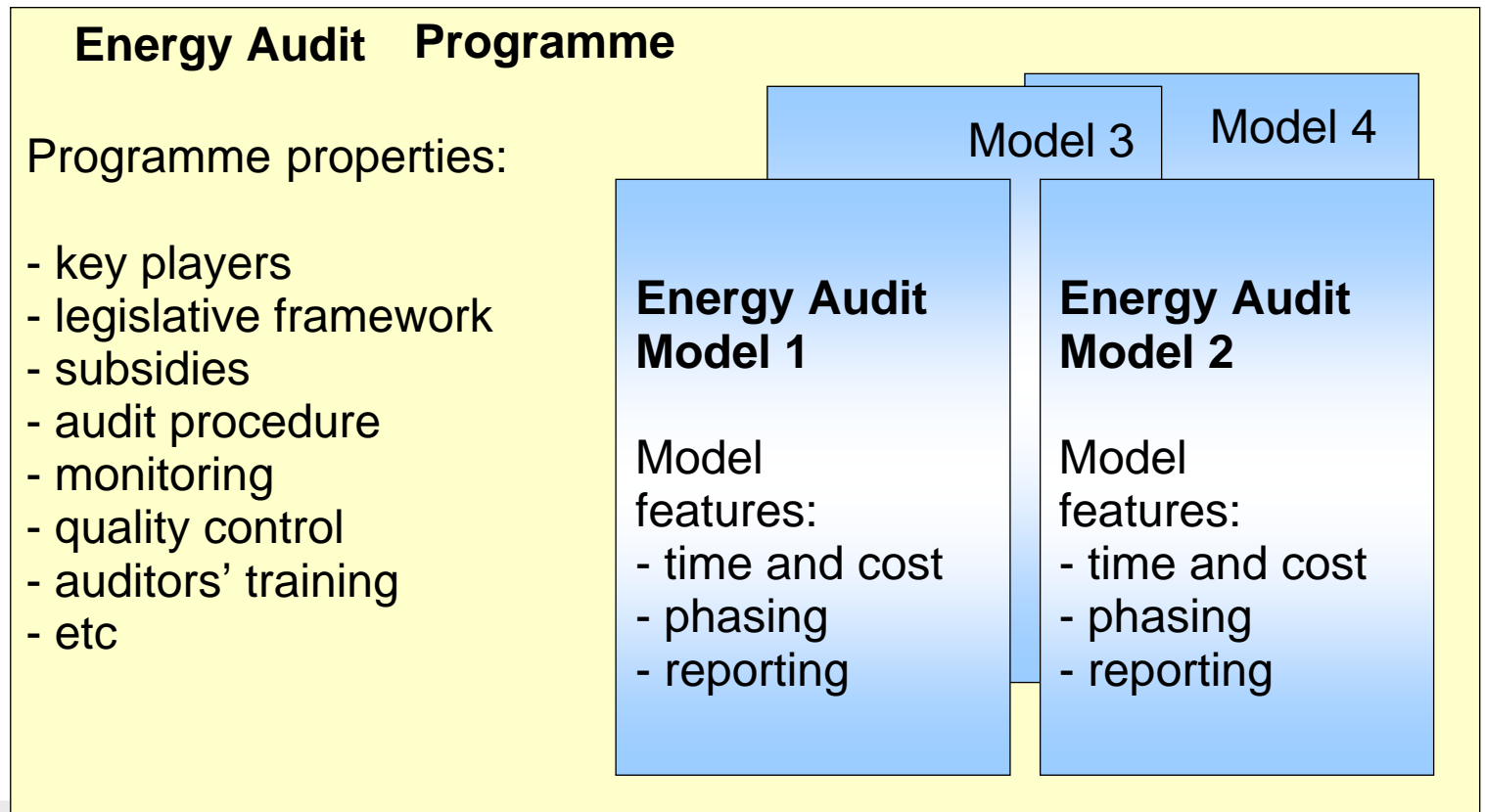
Why different Audit Models?

- **An energy audit analyses the present energy use and points out profitable saving measures, but**
 - energy is used for different purposes (e.g. heating or process)
 - the scale of energy consumption varies (e.g. school or power plant)
 - the site can be at various stages of its life cycle (e.g. new, renovated)
 - the size of the site varies (e.g. petrol station or city hospital)
 - the scope of the energy audit varies (walk-through / thorough analysis, system-specific / wide scope...)
- **Different needs for**
 - amount of work
 - audit phases
 - reporting

Different properties of energy audits



Features of audit models



Energy Audit Models in Finland 1

- **Service sector**
 - **Building Energy Audit** - the basic model for service sector buildings, includes two categories of buildings: simple (schools, offices, etc) and complicated (swimming halls, ice arenas, etc)
 - **Energy Inspection** - the model for small buildings, light reporting
 - **Post-acceptance Energy Audit** - the model for new and renovated buildings, “tuning” the energy use to optimal level
 - **Follow-up Energy Audit** - the model to update the previous energy audit
- **In these models the audit cost (and subsidy) are related to the building volume**

Energy Audit Models in Finland 2

- **Industry**
 - **Energy Inspection** - can be applied for extra-small SME's
 - **Industrial Energy Audit** - the model for sites with low energy intensive production process, looks at the energy use of the building and the process supply systems
 - **Industrial Energy Analysis** - the heavier model for sites with medium energy intensive production process, includes the process analysis
 - **Process Industry Energy Analysis** - the two-phase model for energy intensive process industry, the first step scans the needs for following Industrial Energy Audits and Analyses
 - These models can be used as Follow-up Audits also
- **In these models the audit cost (and subsidy) are related to yearly energy and water cost**

Energy Audit Models in Finland 3

- Energy sector
 - District Heating Audit - the model for district heating plants and heat distribution networks
 - Power Plant Energy Analysis - the model for power plants
- In these models the audit cost (and subsidy) are related to yearly energy production
- A model for **apartment buildings** has been developed, it is in the piloting phase