IAM architecture

Input databases

- emission inventories and projections
- emission reduction measures:
  - ✓ technical measures
  - ✓ non-technical measures
  - ✓ costs
- Emission-concentration relationships (CTM simulations)

Decision model

- what-if analysis
- cost-benefit analysis
- cost-effective analysis
- multi-objective analysis

Source-receptor models

Deliverables

- efficient policies
- objective values
- post-processing:
  - ✓ *ex-post analysis*
  - ✓ sensitivity

IAM at European scale

- Cost effective
- Multi-pollutant, multi-effects
- Country to grid
- Linear S-R matrixes
- Negotiation
- Targets

IAM at national to local scale

IAM	domain	methodology	AQIs	measures	CTM model	Sensitiviy analysis
BelEUROS/RIO/ External costs	National, sub-national	Scenario assessment	Air quality	Technical and non technical	BelEUROS	Emissions, meteorology
FRES (FIN)	National, sub-national	GAINS	Air quality, GHGs	Technical	UDM-FMI and SILAM	Emission, spatial scale
GAINS (FR)	National	GAINS	Air quality, GHGs	Technical	EMEP	-
GAINS (NL)	sub.-national	GAINS	Air quality, GHGs	Technical	OPS	Spatial scale
MINNI (IT)	national	GAINS	Air quality	Technical and non technical	FARM	Emissions, meteorology
OTELLO (D)	national	Scenario assessment	Air quality	Technical	-	emissions planning indicators
RIAT (IT)	Sub-national	multiobjective	Air quality	Technical	TCAM	Planning indicators
SCARP (S)	Regional	GAINS	Air quality, GHGs	Technical	EMEP	emissions source-receptor relationships
SRI (PL)	local	-	Air quality	-	CALPUFF	EMISSIONS
UKIAM (UK)	national	Scenario assessment	Air quality	Technical and non technical	EMEP, FRAME, BRUTAL	Spatial scale, traffic emissions

IAM at sub-national to local scale

- supporting local decision maker (DSS)
- harmonization with National and International air quality plans
- accounting for local peculiarities in terms of emissions, meteorology and technological, financial and social constraints.
- selecting planning indicators (pollutants, exposure, targets and exceeding levels, …)
- selecting effective policies (time horizon, spatial distribution, domain features and constraints, …)

Local IAM DSS

- DSS development is a recursive process
- Features
  - Locality
  - Flexibility
  - Openness
- Standard tool
- Air quality Directives review