



# EnerKey coordination and day to day management

EnerKey PMC Meeting 23 June 2008

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Aims and objectives

Benefits of EnerKey

Measuring our success

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18 month timeline of events



## Aims and objectives

1. Help metros provide cheaper, safer and cleaner energy
2. Develop a network of energy researchers and stakeholders in the Megacity region of Gauteng
3. Provide structures, tools and processes to better understand and manage the overall energy system, including socio-economic drivers and impacts of energy use
4. Inform and assist the implementation of socially, economically and technically sound solutions to energy needs and services

## Benefits to municipalities and province:

Energy saving

Climate change GHG reduction

Local air quality improvement

### Enerkey intervention areas

- Buildings and settlements
  - Domestic energy
- Transport and mobility
- Industry and energy supply technologies
- Information management and decision support



# Measuring our success

## Buildings and settlements

- Commercial, institutional buildings
  - energy retrofiting
  - new green building construction codes
- Domestic
  - Solar water heating
  - Energy efficient low cost housing

### **METRIC**

- Lower energy consumption for same utility/economic output
- Reduced GHG emissions
  
- Lower energy/fuel consumption for same level of comfort/utility

## Domestic energy

### Subset of Buildings and settlements

- Energy efficient coal stoves **METRIC**
  - Basa njenga magogo
  - New design through-flow coal stoves – 80% efficiency
- Safe(r) alternative energy
  - Paraffin stoves
  - Domestic energy use safety and efficiency interventions
- Improved ambient air quality in townships
- Reduced GHG emissions
- Fewer shack fires
- Fewer fire-related deaths

## Transport and mobility

- Transport congestion and emissions monitoring and modelling
  - Transportation planning
  - Alternative vehicle technologies and fuels
- METRIC**
- Congestion indices
  - Lower fleet average fuel consumption
  - Reduced traffic generated ambient air pollution
  - Shorter mean commuting times
  - Reduced GHG emissions

## Industry and energy supply technologies

- Alternative energy production (PV, co-generation, ...)
- Smart controls
- Full spectrum sunlight utilisation
- Energy efficient motors and appliances
- Cleaner production

### **METRIC**

- Reduced energy consumed per unit of Gauteng GDP
- Reduced GHG emissions
- Improved air quality

## Information management and decision support

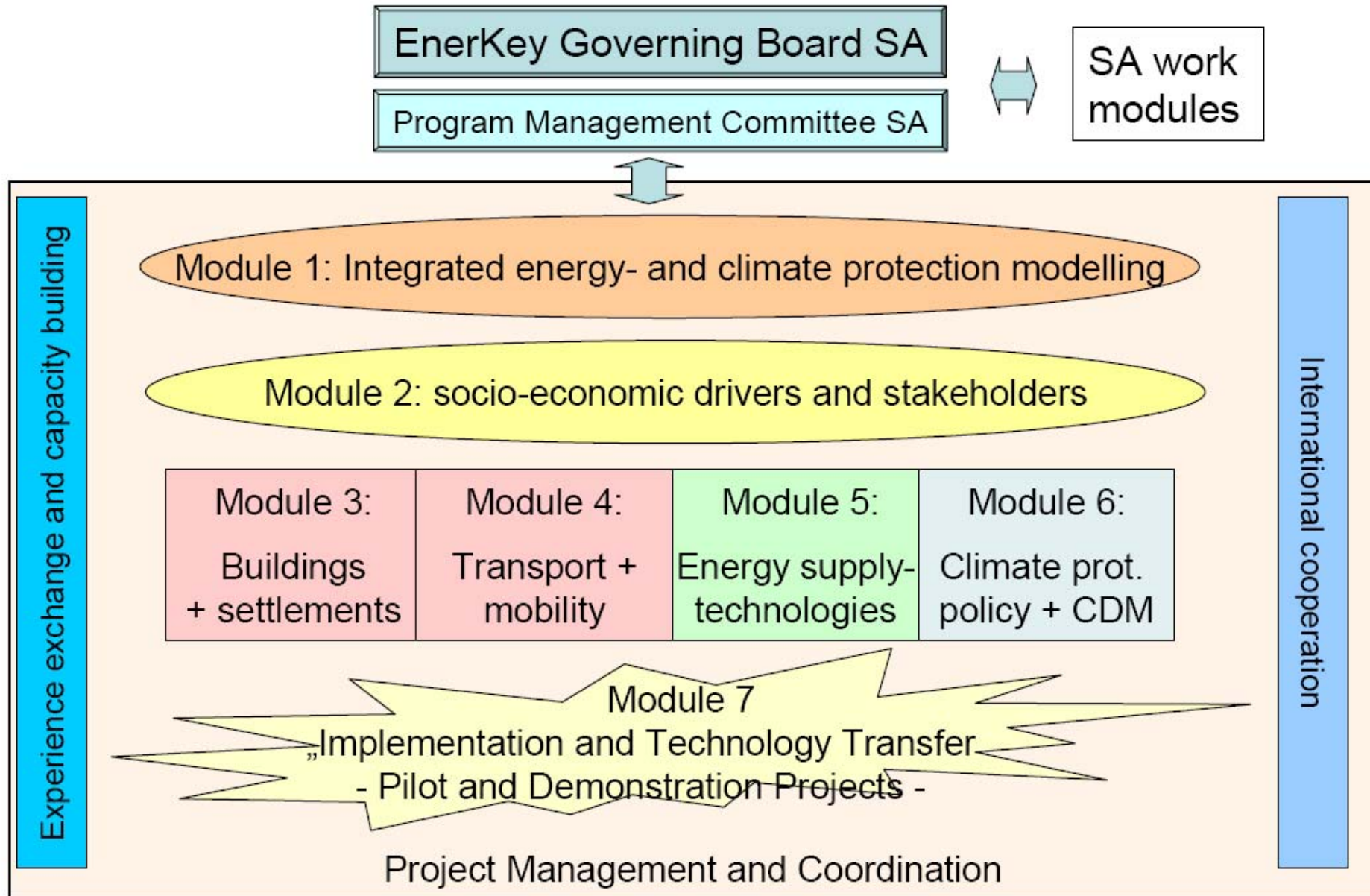
- Common database structures to capture and share energy related information
  - Integrated energy and climate protection modelling
- METRIC**
- Continuously available energy statistics
  - Annual state of energy reports available within 3 months of year end



# Management structure



# Energy as a Key Element of an Integrated Climate Protection Concept for the City Region of Gauteng



# Institutional pairing





## Module Leaders

Module 1: IER and ERC

Module 2: IZT, DBSA and potentially GP

Module 3: IBP, CSIR and Green Building

Module 4: TÜV Rheinland, CSIR and COJ Transport planning

Module 5: IER, UP and Tshwane

Module 6: TÜV Rheinland, EMM and potentially WITS

Module 7: INEP, UJ

Possible new module:

Module 8: Energy use in the lower income sector – FBAE: PEER Africa and INEP

Or division of modules:

E.g. module 7 into a) implementation and b) technology – knowledge transfer



## Expectations from module leaders

1. Facilitate module meetings – at least 2 month intervals
2. Provide a strategic vision and guidance to projects within their modules
3. Set timeline and goals for projects
4. Give feedback regarding meetings and plans (copies of agendas and minutes)
5. Be a contact point for interfacing with the other modules for exchange of information
6. Seek funding opportunities for their modules and keep auditable records

## Programme Managers Role

1. Supervise, coordinate and participate in post graduate research related to EnerKey in South Africa and Germany – personal research focus: information management for decision making, evaluation of energy technologies and transport/mobility
2. Assist the EnerKey coordinators to focus the technical activities of the modules towards the overall project objectives
3. Manage the EnerKey work plan on a day to day basis by interacting with module leaders – support structure
4. Supervise and assist the secretariat in managing contact details, distribution of agendas and minutes, and arranging PMC and GB meetings and events
5. Provide coordinating details and sharing information to facilitate communication between module leaders and stakeholders – manage EnerKey calendar, compile newsletter, manage website content and central contact point for members of EnerKey
6. Assist the EnerKey coordinators to represent EnerKey at local, national and international conferences
7. Other responsibilities – lecture in Dept Mechanical Engineering at UJ



## Contact details

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Password: "the key element"



# Energy as a Key Element of an Integrated Climate Protection Concept for the City Region of Gauteng

## Next 18 month timeline

Project month	month / year	Event	Place	responsible	contribution	comments
1	June 08	Kick-off meeting Germany	Stuttgart	IER	UJ	
		Programme Management Committee meeting	Joburg	PMC	UJ/IER	
		EnerKey Governing Board Meeting	Joburg	EGB/UJ	IER	
3	Aug-08	Green Building Conference	Wits	Green Build.		
4	Sep-08	INSITE Science Innovation and Techn. Expo	Sandton	IER	UJ	
5	Oct-08	Module 4 project meeting: Coordination and Decision on Transport Models	SA	TIE	CSIR, JET	
6	Nov-08	Training Communal Energy Management	SA	City of Stuttgart	IBP	
8	Jan-09	Conf. "Innovations in Solar Water Heating Technologies"	Gauteng	SESSA	IER	(needs to be confirmed with SESSA)
		Project progress meetings SA	Joburg	IER	UJ	
		Program Management Committee Meeting	Joburg	PMC	UJ/IER	
		Training M6: CDM	SA	TIE	ERK	
		Training M1: TIMES model	SA	IER	UJ, ERC	
10	Mar 09	M2 workshop: Enerkey Scenario Group-Visions 2020	SA	IZT	IER, IBP, TIE	
		Workshop M1 "Energy emission inventory"	SA	IER	TIE	
12	May 09	M2 Sectoral Assessment Workshops - Pilot Actions	SA	IZT	UJ	
		First year progress meeting Germany	Cologne	IER	UJ	
14	Jul-09	M3 Training: "EnerKey Concept Advisor"	SA	IBP	UJ, ERC	
15	Aug-09	M3 workshop "Energy Efficiency in Buildings"	SA	IBP	JET, Stgt.	
		M4 workshop: Traffic management, progress in transport + logistics	SA	TIE	UJ	
		Program Management Committee Meeting	Joburg	PMC	UJ/IER	
		EnerKey Governing Board Meeting 2	Joburg	UJ	UJ/IER	
		M2 Sectoral Assessment Workshops - Pilot Actions	SA	IZT	UJ	
17	Oct-09	Solar World Congress (org. by SESSA)	SA			
		M1 Training: TIMES model	Germany	IER	UJ, ERC	
18	Nov-09	Exp. Exchange workshop "energy management"	Stuttgart	IER	Stgt.	