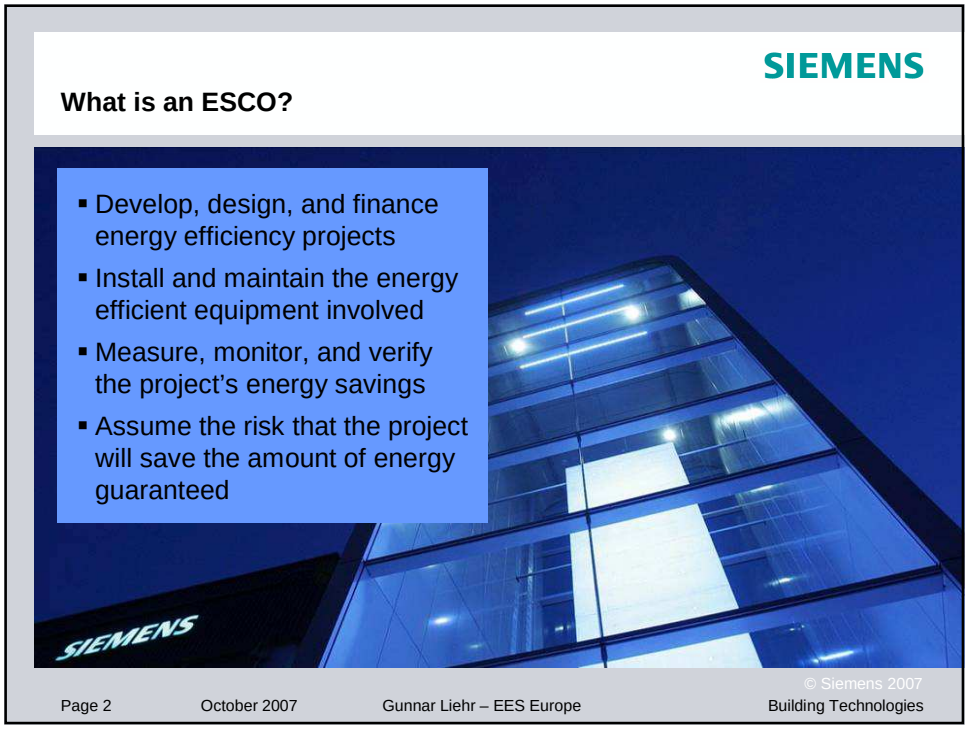

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ESCOs in Europe…Some Current Industry Data

Latest Development of Energy Service Companies across Europe
- A European ESCO Update -

Authors: Paolo Bertoldi, Benigna Boza-Kiss, Silvia Rezessy
Institute for Environment and Sustainability

JRC EUROPEAN COMMISSION

Table 1. Summary of basic data of the EU-27 ESCO market

Number of ESCOs	The total number is unknown. Number of ESCOs range from 0 to 50 per country (0-1000 ESPCs)
Type of ESCOs	both public and private, many multi-national companies, most of which have heating and building control equipment retailer origin
ESCO association	Exists: EFIEES[4]
Size of the market (data from 2000 and for EU15)	€5-10 Bln/year
Change in recent years	Increased, diversified, ESCOs enter into new national markets
Most popular technologies	CHP, street lighting, heating

What is an ESCO ?

Real Market or Potential ?

[4] European Federation of Intelligent Energy Efficiency Services; http://www.efiees.org/.

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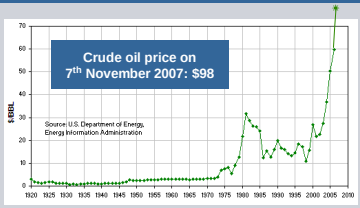
What are Current Market Drivers?

Energy is at the top of any agenda

- Demand for energy continues to grow
- 40 percent of the world's energy is consumed in buildings
- Megatrend - Urbanization: 50%+ population now in urban centers
- Energy is a growing topic on corporate agendas

Rising energy and CO_2 emission costs



Public awareness on climate changes

Climate Change…
Not a new topic, but now with the right attention !

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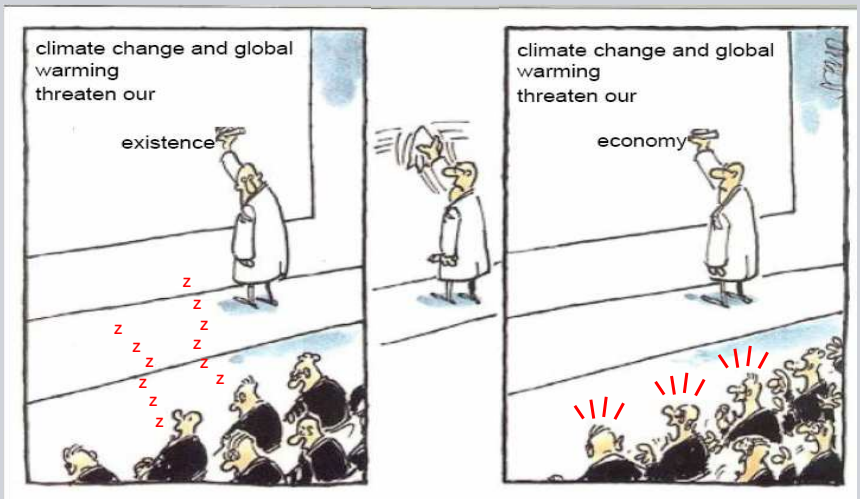

Market Potential…
Hype or Reality, where are we right now ?

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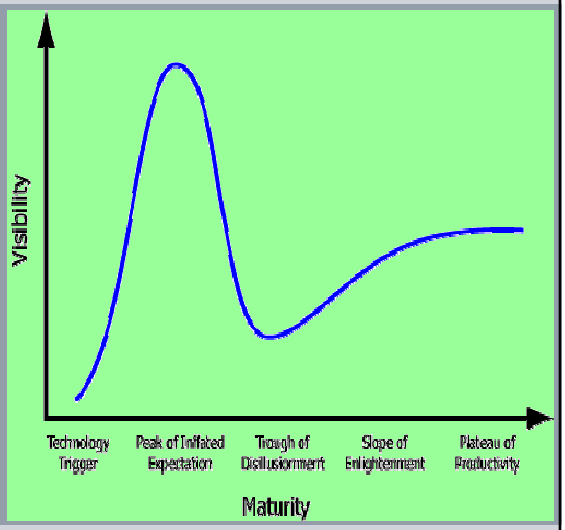
The 5 phases of the Gartner Hype ….



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What is needed to turn potential into revenue?

1. Advanced technology
2. Appropriate procurement or business models
3. Available financing
4. Favorable legislations
5. The right people – Experts on Energy Efficiency

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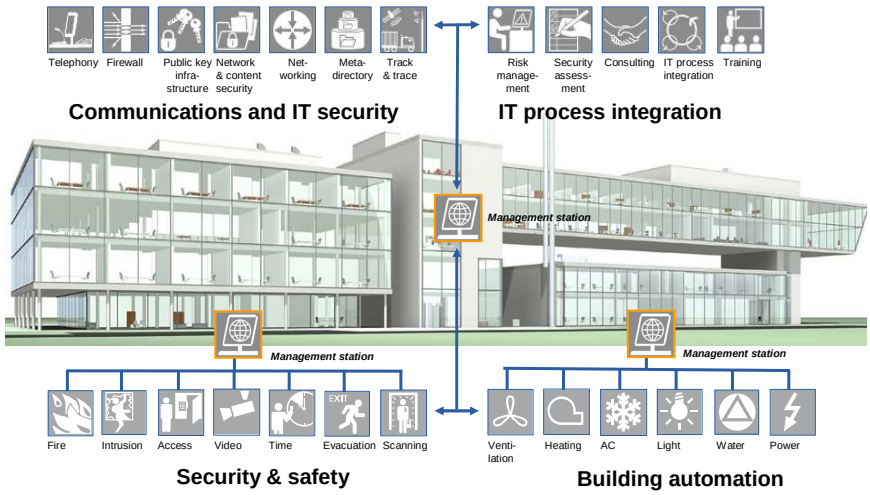
1. Advanced Technology



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2. Appropriate Procurement / Business Models

Characteristics

- Specially tailored to customer's requests
- Guarantee promise ensures success
- Innovative technical solutions
- Optional financing of the investment possible
- Integration of users and operators
- Standardized procedure (EUROCONTRACT)
- Energy-price changes are neutralized in the baseline

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3. Available Financing

Example: CCI

CLINTON FOUNDATION | CLINTON CLIMATE INITIATIVE

Energy Efficiency Building Retrofit Program

OBJECTIVE	STRATEGY	METHODOLOGY
Significantly reduce greenhouse gas emissions in large cities throughout the world	*Increase energy efficiency of municipal and private buildings in C40 cities*	*Performance Contracting and large-scale energy retrofit projects*

C40 CITY COORDINATION
CCI City Directors

ENERGY RETROFIT PROJECT EXECUTION
SIEMENS or other ESCO

Major Energy Retrofit Projects

PROJECT FINANCING
$5 billion total commitment from five major global banks

PROGRAM PARTICIPANTS
C40 cities and private building owners

Greenhouse Gas Reduction

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4. Favorable Legislation

- **Directive 2002/91: EPBD - ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE**
- **Directive 2006/32: EEUES ENERGY END-USE EFFICIENCY AND ENERGY SERVICES DIRECTIVE**
- **EU'S / NATIONAL ENERGY EFFICIENCY ACTION PLAN**

- Promoting the improvement of the energy performance of buildings via:
  - Framework for performance calculation
  - Minimum performance requirements for buildings
  - Energy certification of buildings
  - Inspection of installations (heating & cooling)
- National action plans to achieve 1% p.a. savings
- Public sector to have an exemplary role
- Member States to provide guidelines
- ESPC as an public procurement measure
- Model contracts for financial instruments

- Implementing the EEUES Directive
- Financing energy efficiency

SBT BAU/EES

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5. People

- **Shortage of energy professionals:**
  - **Sales**
  - **Consulting**
  - **Engineering**
  - **Services**
- **Too few universities offering curriculum in energy engineering**
- **ESCO's are looking for substantial increase of capacity**

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The Energy Efficiency Market in Europe… Very interesting future potential!

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Latest Development of Energy Service Companies across Europe

- A European ESCO Update -

Authors: Paolo Bertoldi, Benigna Boza-Kiss, Silvia Rezessy

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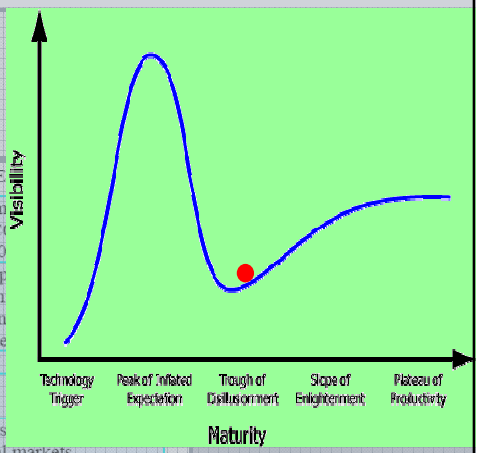

Energy efficient buildings represent a tremendous growth market

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- **Increasing price of energy**
- **Increasing environmental awareness**
- **New environmental programs and changed basic conditions**

Additional market potential for SBT : ~€20 billion in the next 10 years

- Energy-efficient products
- Energy Management Systems
- Energy Services
- Energy-saving Contracting

SBT will benefit from this growth trend in high-grade segments.

Energy Efficiency by Siemens…
We keep growing and growing!

SIEMENS

More than 2,000 energy efficiency projects since 1994

Energy savings of > €1.5 billion in 10 years

Total CO_2 savings: > 700,000 tonnes, equivalent to 230,000 cars each driving 20,000 km/year!

European Energy Service Initiative
The European Energy Service Award

European Energy Service Award

Best Provider 2006
"Siemens Building Technologies"

… and we have strong partners !

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