

SILC - Sustainable Industry Low Carbon: Outline of the initiative

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DG ENTR B1



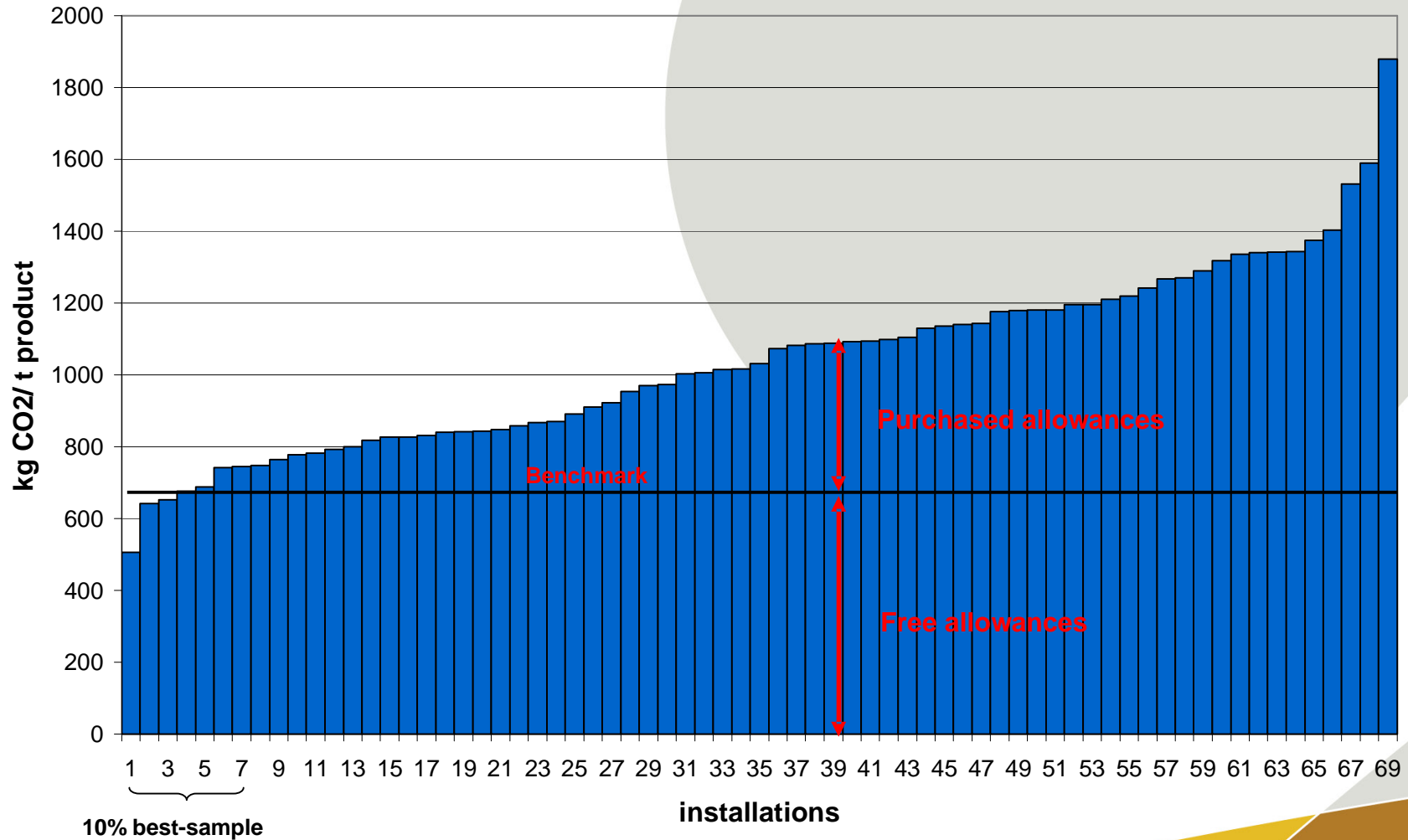
European Commission
Enterprise and Industry

SILC – Context

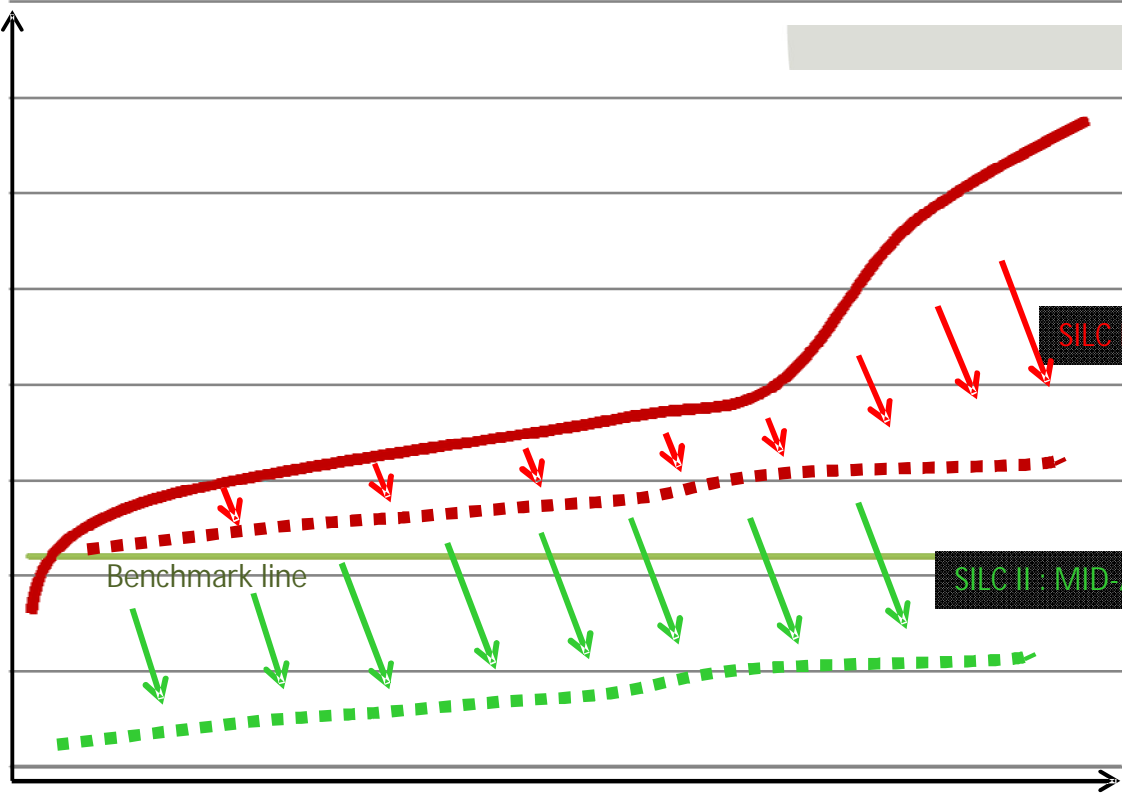
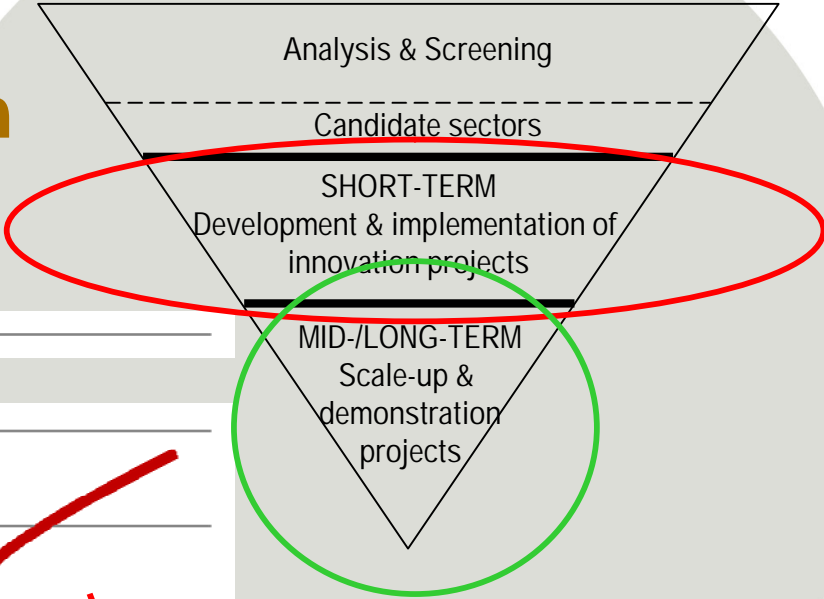
ETS - Harmonised allocation rules as of 2013

- Auctioning is default allocation method
 - Electricity generation: 100% as of 2013
(save limited exemptions for 10 new MS as per Art 10c)
- Transitional free allocation based on BMs
 - Sectors ‘not at risk’
 - Phasing out free allocation
(80% of BM in 2013 – 30% of BM in 2020 – 0% in 2027)
 - Sectors at risk of ‘carbon leakage’
 - 100% of BM

SILC – The BM curves as starting point



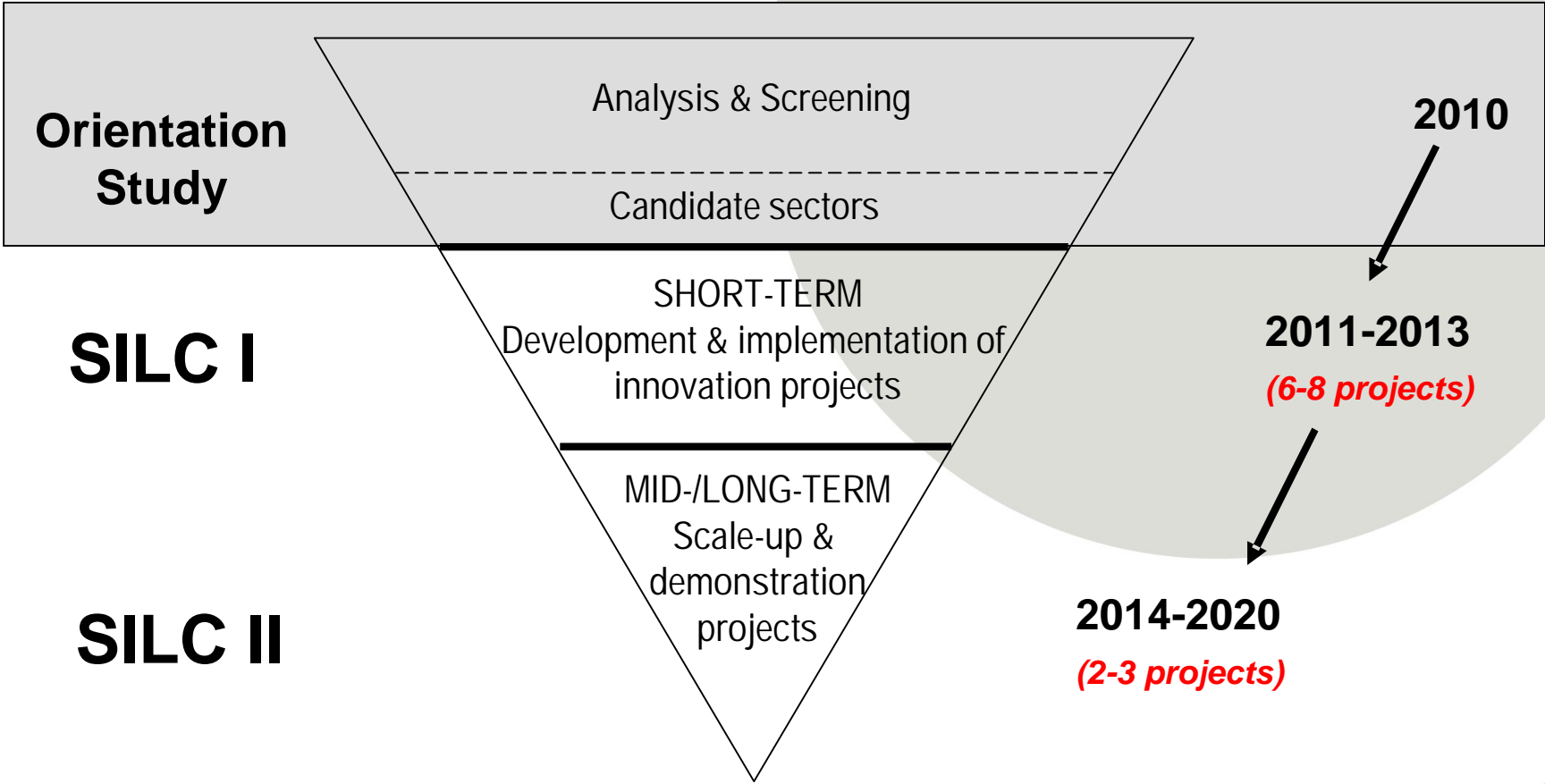
SILC: A two-step approach



SILC – “Sustainable Industry Low Carbon”

- SILC I & II: An industrial Programme
 - § Energy-intensive manufacturing industries (EII) under ETS
 - § Technological & non-technological innovation
- Objective
 - § Help maintaining competitiveness of EIIs despite ETS cost burden
 - § Reduce GHG emission intensities of EII sectors
 - § Find the most innovative & least-costly ways
 - § Developing ‘ready to implement’ solutions in different sectors
- Benefits for industry:
 - § Reduce cost burden (« similar problems – similar solutions »)
 - § Increase « critical mass »: knowledge & visibility
 - § Proactive approach on ETS
- Sector-specific projects
 - § Carried out by industrial stakeholders
 - § Co-financed by EU

SILC: General workflow & timeline



SILC I & SILC II: Cornerstones

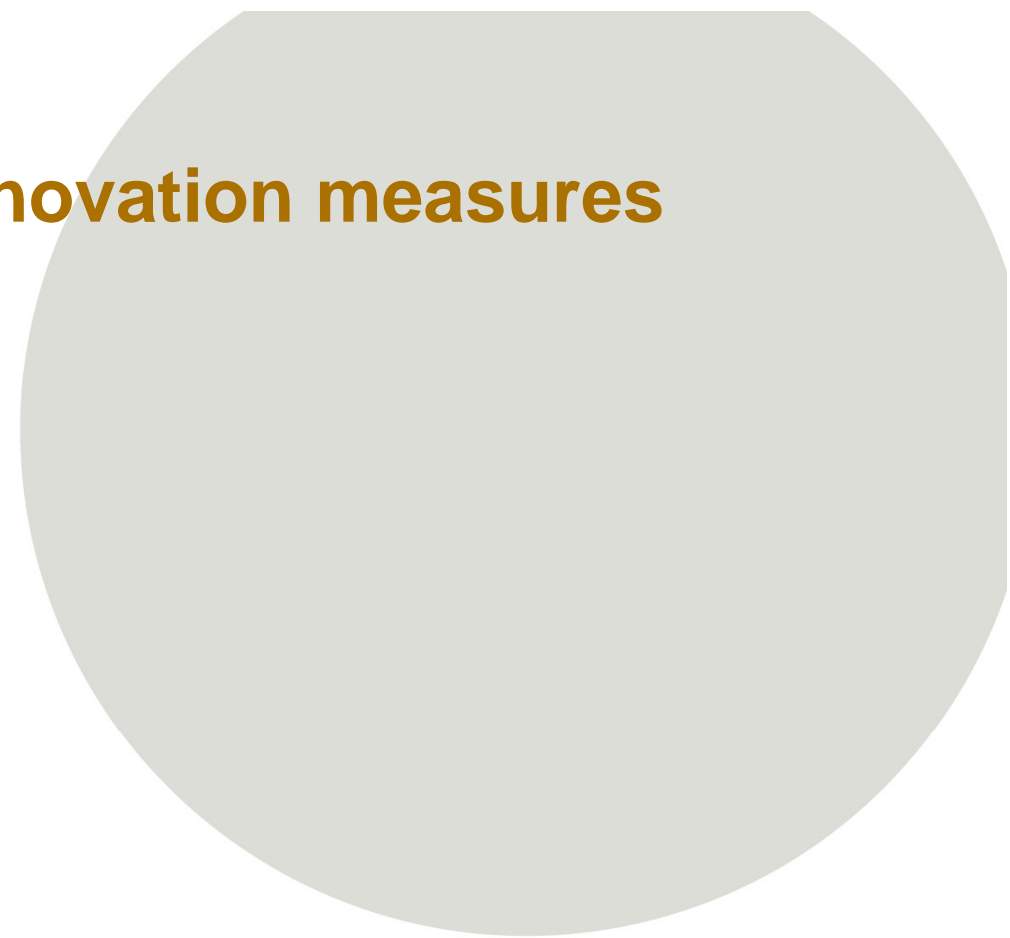
	SILC I	SILC II
Time horizon	short term	mid-/long-term
Start of projects	2011-2013	2014-2020
Duration	18-36 months	3-5 years*
EU funding	EU co-financing, Grant Agreement	
EU funding rate	75%	50-60%*
max. EU contribution	up to 950 k€/project	up to 30 M€/project
Nb of projects (expected)	6-9*	1-3*

** Indicative information only – subject to further confirmation*

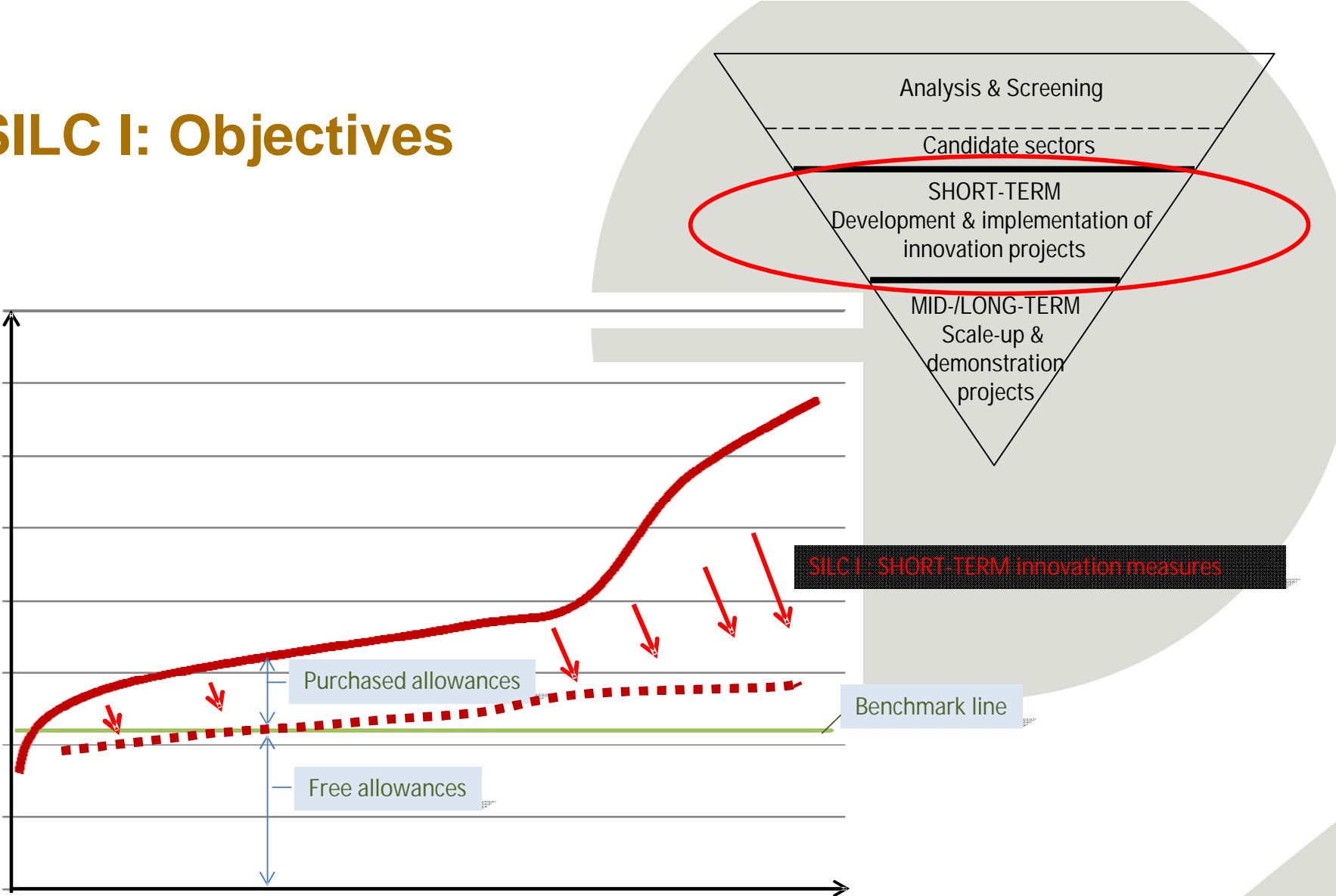
What SILC is not

- A set of further studies
- Financed through ETS revenues
- Providing subsidies to individual installations
- Foreseen initiative “Innovation Accelerator”
- Primarily focusing at energy efficiency
- Focusing at technological measures only

SILC I – Short-term innovation measures



SILC I: Objectives



How could a SILC I project look like?

- Technological:

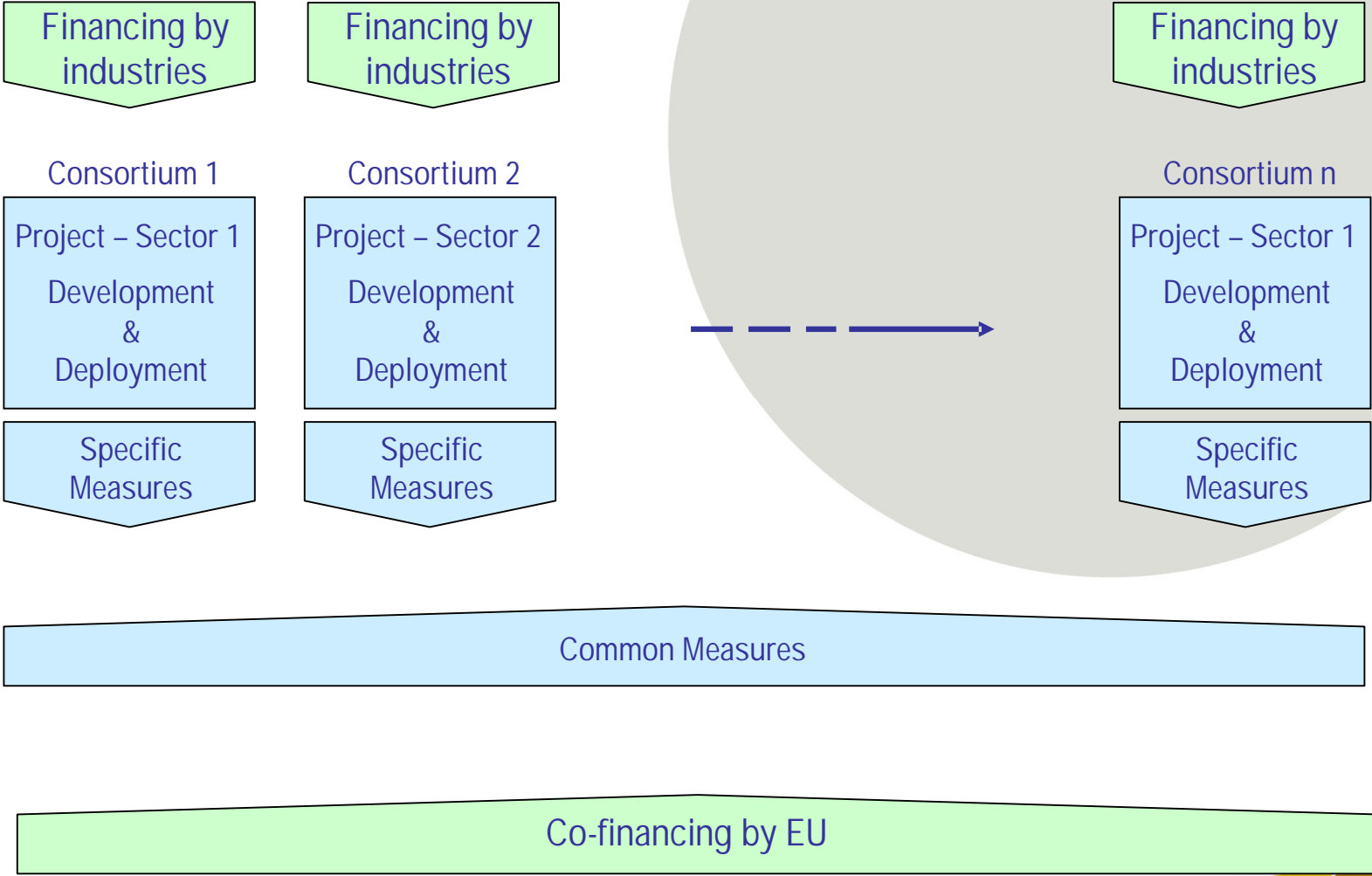
- § Use of alternative fuels (biomass, co-processing)
- § Energy recovery & waste heat management
- § Implementation of tertiary N₂O abatement technology (Nitric Acid)
- § (Process-)Integration of cogeneration

Reduction of
GHG emissions

- Non-technological

- § Developing educational tools, e.g. best practice & benchmarking
- § Energy information campaigns
- § Joint energy management, exchange platforms
- § Access to finance

SILC I: Provisional set-up



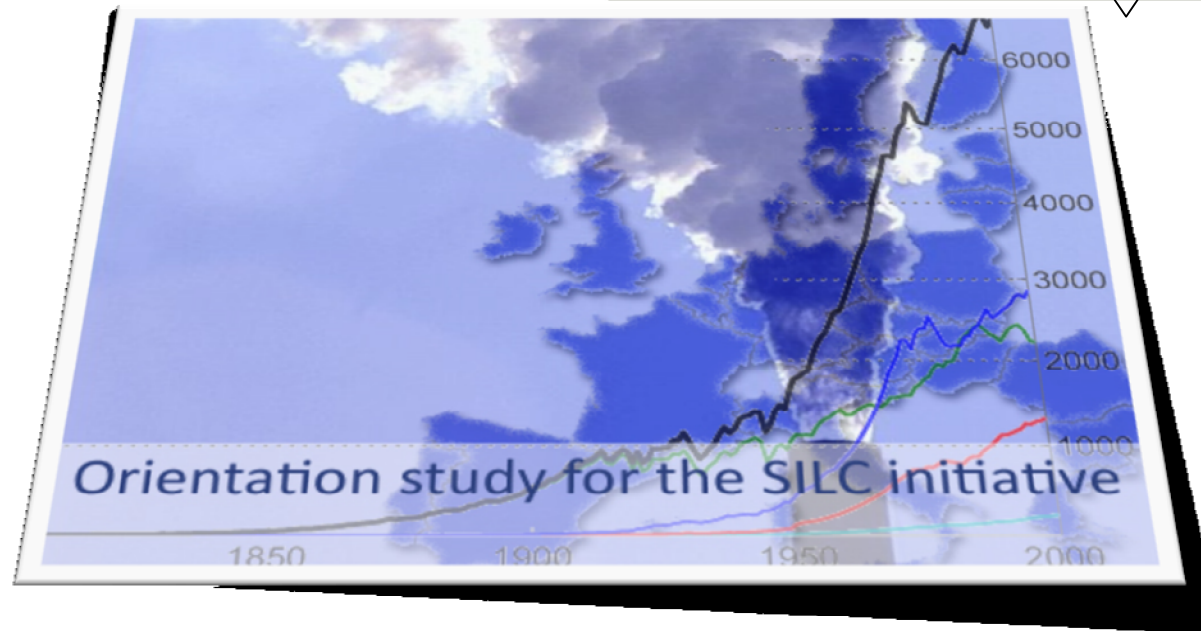
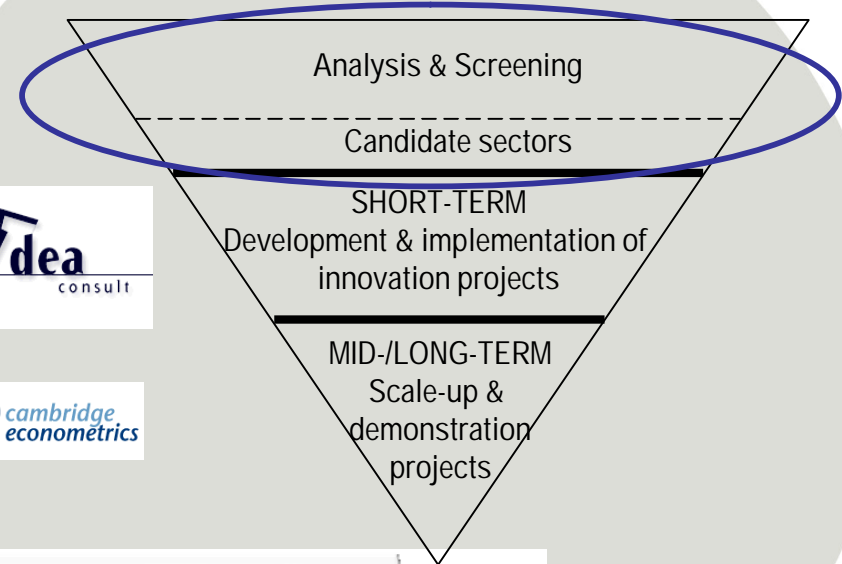
SILC I: Cornerstones

- Call(s) for proposals
- Financial
 - § Co-financing rate up to 75%
 - § Max. co-financing: 950 k€ per project
 - § Up to 9 projects, rolling start in batches over 2011 – 2013
 - § 3 batches with up to 3 projects each – 2011 / 2012 / 2013
- Grant Agreements
- Project duration: 18 - 36 months
- Participation rules currently under development

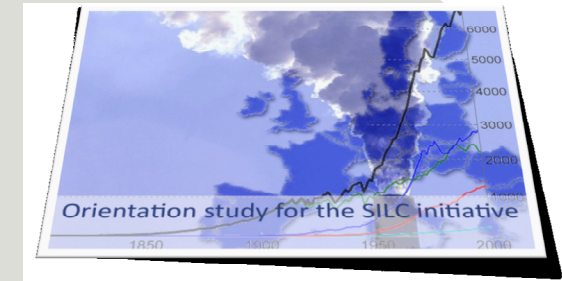
SILC I: Provisional timing

- Tentative schedule (2011 batch)
 - § Publication Call for proposal – early June
 - § Submission of call for proposals – by September
 - § Selection of projects – October/November
 - § Start of projects – by December

SILC Orientation Study

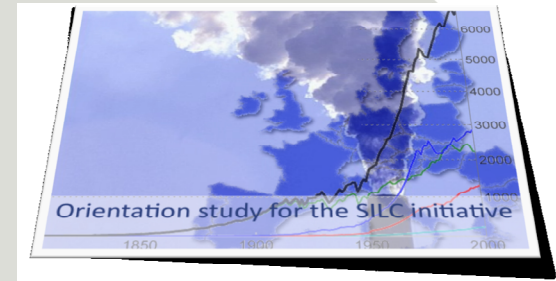


SILC Orientation Study

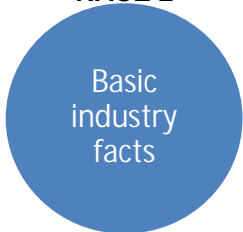


- 8-months study (29 July 2010 – 21 March 2011)
- Objective
 - § Exploratory study to prepare SILC I
 - § Content
 - State of play on ongoing initiatives in ETS sectors
 - Basic industry facts & data,
 - ETS impact on competitive situation
 - Technological, regulatory & other conditions affecting competitiveness
 - Identification of likely candidate sectors/sub-sectors for SILC I
 - Showcases
 - § See also: <http://www.teknologisk.dk/29570>

SILC Orientation Study – Methodology



NACE 2



- Economic importance
- Environmental pressure
- Innovation & Technology



- BM curves - spread
- Structural differences
- Cost assessment

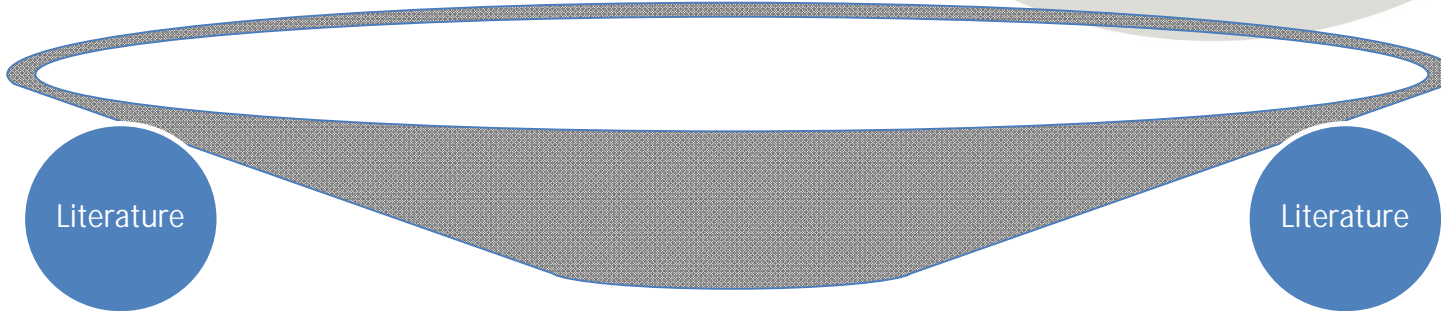
NACE 2 / NACE 4 / PRODCOM 8



- Technology
 - Price
 - Effects
 - Attitudes

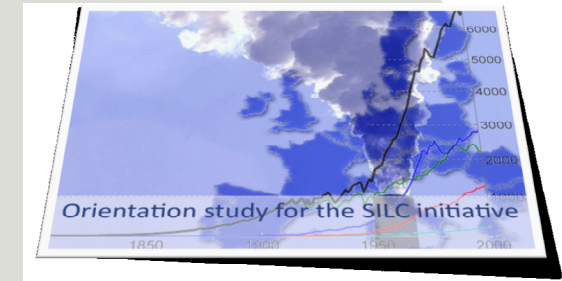


- Competitive situation
- Possible pathways
- Possible synergies
- Barriers & incentives
- Regulatory framework



Earmarking candidate sectors for SILC I

SILC Orientation Study – Findings (extract) Industry Facts



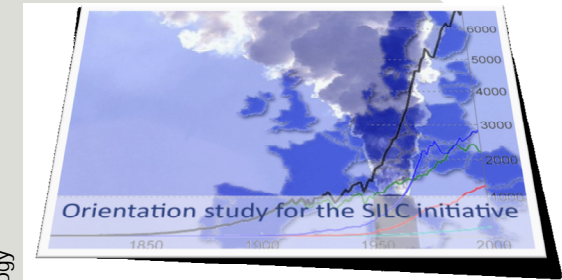
ETS sectors ranked by basic industry

NACE	Theme 1. Economic importance				Theme 2. Environmental pressure				Theme 3. Innovation & Technology		Interesting for the SILC scheme?
	average employment size across countries	Total Enterprises	Share of SME's	Interesting from an economic perspective?	GHG/employee	GHG/VAF	GHG/ output	Interesting from an environmental point of view?	R&D per turnover	Interesting from an R&D perspective?	
11 Extraction of crude petroleum and natural gas	1	1	2	4	5	2	3	10	/	/	7
21 Manufacture of pulp, paper and paper products	3	4	4	11	1	3	2	6	2	2	6
23 Manufacture of coke, refined petroleum products and nuclear fuel	2	2	1	5	6	6	4	16	1	1	7
24 Manufacture of chemicals and chemical products	6	5	3	14	2	1	1	4	5	5	8
26 Manufacture of other non- metallic mineral products	5	6	6	17	3	5	6	14	4	4	12
27 Manufacture of basic metals	4	3	5	12	4	4	5	13	3	3	9

The data have been ranked from smallest to largest, with 1 being the smallest value and 6 being the largest value

SILC Orientation Study – Findings (extract)

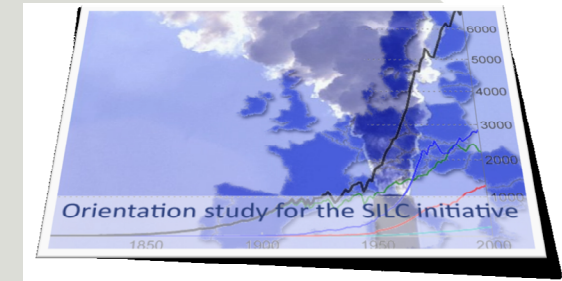
Online survey: Overview results



	Technology	Price	Effects	Attitudes		Technology	Price	Effects	Attitude
Combustion of fuels	1	0	0	0	Drying or calcination of gyps	1	0	0	0
Refineries	1	0	0	0	Plaster	1	0	0	1
Iron and Steel	1	1	1	0	Plasterboard	1	0	0	1
Coke	0	1	1	1	Dried secondary gypsum	1	0	0	1
Sintered ore	0	1	1	1	Pulp and paper	0	1	1	0
Iron ore pellets	0	1	1	1	Kraft pulp	0	1	1	1
					Sulphite pulp, thermo-mechanical and				
Hot metal	0	1	1	1	mechanical pulp	0	1	1	0
EAF carbon steel	0	1	1	1	Recovered paper	0	1	1	1
EAF high alloy steel	0	1	1	0	Newsprint	0	1	1	0
Iron casting	0	1	1	1	Uncoated fine paper	0	1	1	0
Aluminium	0	0	0	0	Coated fine paper	0	1	1	1
Pre-bake anode	0	0	0	1	Tissue	0	1	1	1
Aluminium	0	0	0	1	Testliner & fluting	0	1	1	1
Other non-ferrous metals	1	0	0	0	Uncoated carton board	0	1	1	1
Cement	1	0	1	1	Coated carton board	0	1	1	0
Grey cement clinker	1	0	1	1	Chemical industry	1	0	0	0
White cement clinker	1	0	1	0	Nitric Acid	1	0	0	0
Lime	1	0	1	0	Adipic Acid	1	1	0	0
Lime	1	0	1	0	Ethylen-Oxide & glycols	1	1	0	1
Dolime	1	0	1	0	Vinyl chloride monomer	1	1	0	0
Sintered dolime	1	0	1	0	Phenol/acetone	1	1	0	0
Glass					S-PVC	1	1	0	0
Float glass					E-PVC	1	1	0	0
Bottles & jars of colourless glass					Soda ash	1	1	0	1
Bottels & jars of coloured glass					Carbon black	1	1	0	0
Continuous filament glass fibre					Ammonia	1	1	0	0
Ceramics	1	1	1	0	Styrene	1	1	0	0
Facing bricks	0	1	1	1	Hydrogen	1	1	0	0
Pavers	0	1	1	1	Aromatics	1	1	0	0
Roof tiles	0	1	1	1	Steam cracking	1	1	0	0
Spray dried powder	0	1	1	1					
Mineral wool									

SILC Orientation Study – Findings (extract)

Earmarking of sectors



Sector	Technological pathways	Non-technological pathways	Barriers	Synergies	Assessment
Combustion of fuels	Utilising waste heat Use of biomass	Check of processes in each plant to ensure energy efficiency	Large sectoral spread – different to identify projects relevant to the majority of the combustion plants Economic Lack of knowledge	Utilising waste heat Use of biomass	Earmarked for SILC I
Chemical industry	N2O abatement techniques	Active information campaigns on energy efficiency campaigns in especially New Member States	High cost – but technology providers are working on techniques with lower costs	Ammonia/Nitric Acid in abatement techniques and energy efficiency across most chemical sub-sectors	Earmarked for SILC I (Technical initiative: Ammonia/Nitric Acid; Non-technical: all sub-sectors)
Pulp and paper	Numerous possibilities, but an intermediate project is needed to define most promising projects	Networking on energy management issues	Financing	Possibility for networking on energy management issues	Earmarked for SILC



**Thank you
for your attention!**

**For any further queries or information on SILC,
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