

1. Publishable Final Report

1.1. Project Execution

SILENCE developed an integrated system of methodologies and technologies for an efficient reduction of urban traffic noise. Within SILENCE the considerations of city authorities, individual road traffic, mass rail transport and road / rail construction were combined.

The subjects of research and investigations were: urban noise scenarios, noise perception and annoyance, individual road and rail vehicle noise improvement, noise reduction from tyre / road interaction, low noise road surfaces and construction, traffic management and city planning.

The SILENCE approach started in three steps: the assessment of urban noise situations, the definition of urban noise scenarios as a reference basis for the whole project, the identification of the related noise abatement priorities and noise reduction potentials. On this basis, the RTD activities concentrated on the development of noise abatement technologies and tools and methodologies for noise reduction and policy decisions. Thereby, the essential categories of urban traffic vehicles were considered: cars, light duty trucks, buses, trams, trains, metros etc.

Road and rail traffic noise sources were investigated and simulated by sophisticated analysis tools for noise reduction measures using new noise reduction materials and designs.

SILENCE developed and presented solutions for road surfaces / construction and rails to reduce their noise emission as well as methods for noise control by road traffic management and driver assistance systems. Out of urban noise scenarios urban action plans and decision support systems were designed in order to support city councils.

With the combined results of SILENCE a reduction of road and rail traffic noise emission in urban areas by up to 10 dBA can be achieved.

The final results of SILENCE were presented at conferences and in dedicated dissemination and training events.

For further information as well as for the SILENCE e-learning project see the SILENCE website

www.silence-ip.org

1.2 Participants

Participant. Role	Participant name	Participant short name	Country	Date enter project**	Date exit project**
CO	AVL List GmbH	AVL	A	1	40
CR	Centro Ricerche Fiat S.C.p.A.	CRF	I	1	40
CR	Deutsche Bahn AG, DB, Systemtechnik	DB AG	D	1	40
CR	Forschungsgesellschaft für Arbeitsschutz und Arbeitsphysiologie	IfADo	D	1	40
CR	Continental AG	Continental	D	1	40
CR	Forum of European National Highway Research Laboratories	FEHRL	B	1	40
CR	Société Nationale des chemins de fer Français	SNCF	F	1	40
CR	Promotion of Operational links with Integrated Services	POLIS	B	1	40
CR	REGIENOV (RENAULT Recherche Innovation acting on behalf of Renault and its subsidiaries, in particular RENAULT Sport and SOMAC	Renault	F	1	40
CR	Volkswagen AG	VW	D	1	40
CR	Volvo Technology Corporation	Volvo	S	1	40
CR	Deltarail	Deltarail	NL	1	40
CR	ALSTOM TRANSPORT SA	Alstom	F	1	40
CR	Bombardier Transportation (Holdings) Germany GmbH	Bombardier	D	1	40
CR	Bruel & Kjaer Sound & Vibration Measurement A/S	BKSV	DK	1	40
CR	Dynamics, Structures & Systems International	D2S	B	1	40
CR	University of Southampton	ISVR	GB	1	40
CR	Rieter Automotive Management AG	Rieter	CH	1	40
CR	Stiftelsen for industriell og teknisk forskning ved Norges tekniske Høyskole	SINTEF	N	1	40
CR	Société des Transports Intercommunaux de Bruxelles	STIB	B	1	40
CR	Technical University of Berlin	TUB	D	1	40
CR	Adam Mickiewicz University Poznan	UAM	PL	1	40
CR	ANSALDOBREDA S.p.A.	AB	I	1	40
CR	UNIVERSITA POLITECNICA DELLE MARCHE	UNIVPM	I	1	40
CR	Chalmers Tekniska Högskola AB	Chalmers	S	1	40
CR	Gottfried Wilhelm Leibniz Universität Hannover	LUH	D	1	40
CR	Institut National des Sciences Appliquées de Lyon	INSA Lyon	F	1	40
CR	Centre National de la Recherche Scientifique	CNRS-LMA	F	1	40
CR	Lucchini Sidermeccanica SpA	LS	I	1	40

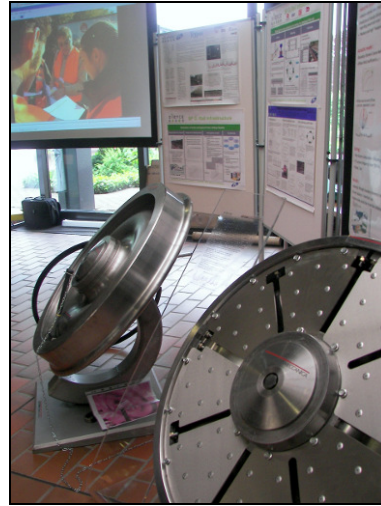
CR	M+P Raadgevende ingenieurs bv	M+P	NL	1	40
CR	Regie Autonome des Transports Parisiens	RATP	F	1	40
CR	TÜV NORD Mobilität RWTUEV Fahrzeug GmbH	RWTUEV	D	1	40
CR	TRENITALIA SpA	Trenitalia	I	1	40
CR	Corus UK Ltd, trading as Corus Rail	CORUS	UK	1	40
CR	VIBRATEC	VTC	F	1	40
CR	Kugliga Tekniska Högskolan	KTH	S	1	40
CR	Administration de l'Equipement et des Deplacements Brussels	AED-DTS	B	1	
CR	Comune di Genova, Unit di Progetto Piano Urbano della Mobilita e Trasporti	UPPUMT	I	1	40
CR	Autostrade per l'Italia S.p.A'	Autostrade	I	1	40
CR	Skanska Sweden AB	Skanska	S	1	40
CR	Bristol City Council	BCC	UK	1	40
CR	Altran Disseny de Sistemes i Desenvolupament, S.L	ALTRAN DSD	E	1	40
CR	Brussels Institute for Environmental Management	BIME	BE	13	40
CR	Dublin Institute of Technology	DIT	IE	13	40
CR	City of Munich – Department of Health and Environ- ment	LHM-RGU	D	13	40
CR	BRUITPARIF – Observatory for Noise in the Ile-de- France Region	BTUITPARIF	F	13	40

1.3 Dissemination and Use

SP J widely disseminated the results of SILENCE to cities and the industry. By providing clear and accessible materials, the dissemination strategy ensures understanding of the project achievements by a large audience. In addition, training materials were developed and training events organized for specific target groups (urban planners, transport planners, engineers), who ensure the follow up of the project and the use of its results.

The activities in WP J.1 “Dissemination and networking” comprised the continuous maintenance and updating of SILENCE website, the organisation of the SILENCE road seminar in June 2007 and proceedings as well as another SILENCE rail seminar in January 2008. Five SILENCE newsletters were published and one joint SILENCE–QCity newsletter. SILENCE was promoted at several international events by all SILENCE partners and a large number of publications presenting individual results of SILENCE are available.

The main activities in WP J.2 “Training and mobility of Researchers” were the development of the practitioner handbook, the organisation of four training events (Clermont-Ferrand in September 2007, Warsaw in November 2007, Barcelona in February 2008 and Bergisch-Gladbach in May 2008. Finally an E-learning section as distinct part of the SILENCE website was created and is available at www.silence-ip.org.



Training and Exhibition at the Bergisch-Gladbach conference in May 2008

The SILENCE e-learning is an excellent opportunity for
 transport or urban planners to learn about the requirements of noise action plans, the action
 planning process and noise abatement measures
 local decision makers to learn about organising the action planning process, advantages and
 problems of noise abatement measures and long-term strategies to abate noise
 transport engineers to find comprehensive technical information about noise abatement
 measures

See

www.silence-ip.org/site/?id=66



For further details about dissemination and training activities see the next section.