

ATTIVITÀ ANNUALE DEL SIT

SIT activity in 2008

Table of contents

	ABSTRACT	3
	SOMMARIO	3
1.	INTRODUCTION	4
2.	LABORATORY ACCREDITATION	4
2.1	- New Laboratories	4
2.2	- Renewals and maintenance	4
2.3	- Extensions of accreditation	4
2.4	- Suspensions and withdrawals	5
2.5	- Training activity and cooperation with accredited laboratories	5
2.6	- Statistics	6
3.	CALIBRATION CERTIFICATES	19
4.	SIT COMMITTEE, SECRETARIAT AND ACCREDITATION COMMITTEE	24
5.	ASSESSORS IN THE ACCREDITATION PROCEDURES	24
6.	INTERLABORATORY COMPARISONS	25
7.	INTERNATIONAL AND NATIONAL ACTIVITIES	26
8.	DESCRIPTION OF ECONOMICAL SOURCES OF INCOME	26

SIT ACTIVITY IN 2008

Abstract

The main results of the SIT activity during 2008 are presented. Specifically, six new laboratories were approved as SIT Calibration Centres, numbered from 205 through 210. The accredited measurement sectors were 844 and the SIT certificates issued by the SIT Centres were 85 133 (77 122 in 2007). The staff of the SIT Centres were 672 units. Some of the SIT Centres participated in interlaboratory comparisons organised for first accreditation, renewal or extension of accreditation, for a total number of 110 comparison exercises.

International co-operation was carried on, mainly with EA and the Calibration Services operating in the European countries.

ATTIVITA' DEL SIT NEL 2008

Sommario

Vengono presentati i principali risultati ottenuti nell'attività SIT svolta nel 2008. In particolare, sono stati accreditati 6 nuovi laboratori come Centri di taratura SIT, contrassegnati con i numeri progressivi da 205 a 210. I settori di misura accreditati sono stati 844 e i certificati di taratura SIT emessi dai Centri SIT sono stati 85 133 (77 122 nel 2007). Il personale coinvolto nell'attività dei Centri SIT è stato valutato di 672 unità. Alcuni Centri SIT hanno partecipato a confronti di misure tra laboratori organizzati ai fini del primo accreditamento, del rinnovo o dell'estensione dell'accREDITAMENTO, con un numero totale di esercizi di confronto pari a 110.

È proseguita la cooperazione internazionale, principalmente con EA e i Servizi di taratura di Paesi europei.

1 INTRODUCTION

SIT continues to carry out the accreditation of the calibration laboratories and the SIT Central Secretariat continues issuing the accreditation attestations, whatever type of calibrations are carried out by the Laboratories. This activity is notified by the decrees descending from the law no. 273/1991 instituting of the National Calibration System (SNT), and accepted in the other countries, being SIT a signatory of EA-MLA and ILAC-MRA agreements on the free acceptance of foreign calibration certificates.

SIT activities covers two accreditation areas. The first area is named Electrical Area dealing with Laboratories involved in measurements of electrical quantities, time and frequency, electromagnetic, photometric, radiometric, electrochemical, acoustical and chemical quantities (formerly under SIT/IEN, the Laboratory Accreditation Department of IEN) and ionizing radiation (formerly under SIT/ENEA of INMRI/ENEA). The second one is named Mechanical Area dealing with laboratories involved in mechanical, thermal and chemical measurements (formerly under SIT/IMGC and the Service for Accreditation of IMGC/CNR).

2 - LABORATORY ACCREDITATION

2.1 - New Laboratories

Six laboratories were accredited as SIT Centres during 2008, specifically:

- Center 205 at LSI LASTEM (Settala, Milano);
- Center 206 at MICROSERVICE s.r.l.(Alpignano, Torino);
- Center 207 at MICROSAT s.r.l. (Motta Visconti, Milano);
- Center 208 at Laboratorio di Taratura della Camera di Commercio di Prato (Prato);
- Center 209 at Istituto Sperimentale della Rete Ferroviaria Italiana S.p.A. (Roma);
- Center 210 at EUROTRON s.r.l. (Sesto San Giovanni, Milano);

2.2 - Renewals and maintenance

Renewal involved 18 Centres. Surveillance visits were 87.

2.3 - Extensions of accreditation

The accreditation was extended to 19 new measurement sectors of 21 SIT Centres, specifically:

- temperature for Centre 024 at EMIT LAS (Milano);
- torque for Centre 052 at CERMET (Cadriano-Granarolo E., Bologna);
- temperature for Centre 056 at FIRENZE TECNOLOGIA (Calenzano, Firenze);
- mass for Centre 086 at FISP (None, Torino);
- torque for Centre 090 at OMECO (Monza);
- displacement at Centre 098 METROCOM (Garbagna Novarese, Novara);
- length for Centre 104 at POLITECNICO DI MILANO (Milano);
- mass for Centre 117 at CIBE (Legnano, Milano);
- mass for Centre 137 at CERT di Treviso Tecnologia (Rustignè di Oderzo, Treviso);
- length for Centre 144 at IC & M (Milano);
- pressure for Centre 150 at ASIT INSTRUMENTS s.r.l. (Orbassano, Torino);
- temperature for Centre 169 at TERSID (Milano);
- pressure for Centre 187 at MTA (Concorezzo, Milano);
- temperature for Centre 188 at METRA (Augusta, Siracusa);

- temperature and umidity for Centre 198 at DELTA STRUMENTI s.r.l. (Gemonio, Varese).

2.4 – Suspensions and withdrawals

The accreditation of the following Centres was suspended during 2008: Centre 010 at ENEA Casaccia (ROMA), Centre 029 at ENEA (Bologna), Centre 061 at Vitrociset S.p.A. (Assemini, Cagliari), Centre 153 at EN.CO. s.r.l. (Spinea, Venezia), Centre 156 at ENEA TRISAIA (Rotondella, Matera) for temperature quantities, Centre 162 at U.S.L. n. 6 (Livorno), Centre 170 at Menci Software s.r.l. (Arezzo) and Centre 173 I&SI S.p.A. (Latina).

For the EA cross frontier policy the accreditation of the Centre 129 at METROLOGY HELLAS situated in Greece has been withdrawn.

The following Centres has renounced the accreditation during 2008: the Centre 058 at FINMEK (Caluso, Torino) the Centre 118 at A.M.I. – Aeronautica Militare Italiana (Pomezia, Roma), Centre 131 at Nirlab Clampco Sistemi s.r.l. (Basiliano, Udine), Centre 158 at Federal Trade S.p.A. (Segrate, Milano).

The Center 104 at POLITECNICO DI MILANO has renounced the accreditation for electrical and acoustical quantities.

2.5 - Training activity and cooperation with accredited laboratories

The training activities were carried out with the organization of some courses for metrological experts, in cooperation with AICQ (Rome), and Istituto Guglielmo Tagliacarne (Rome). An internal training course for SIT assessors has been organized, in order to upgrade knowledge of the SIT documentation.

2.6 – Statistics

Operative Centres accredited by SIT at the end of 2008 were 177. Calibration laboratories accredited by the Mechanical Area at the end of 2008 were 131 and by the Electrical one 64. 18 laboratories were accredited by both Areas.

Approved measurement sectors were 844 (462 and 383 of these sectors are traced to the primary standards provided by Mechanical and Electrical Area, respectively). In order to describe the development of SIT Centres, the progressive number of SIT Centres and the total number of their accredited measurement sectors at the end of each year are given in Table 1.

In Tables 2, 3, 4, 5 and 6 are reported the calibration sectors and the categories of instruments under calibration for which the SIT Centres were accredited at the end of the year 2008.

TABLE 1 - PROGRESSIVE NUMBER OF SIT CENTRES AND TOTAL NUMBER OF MEASUREMENT SECTORS AT THE END OF EACH YEAR

Year	Progressive number of SIT Centres	Number of measurement sectors			Total
		SIT-IMGC/CNR	SIT-IEN	SIT-INMRI/ENEA	
1979	5	-	-	-	-
1980	12	-	-	-	-
1981	16	-	-	-	-
1982	20	-	-	-	-
1983	21	42	42	-	84
1984	27	62	58	0	120
1985	33	66	64	2	132
1986	37	79	60	2	141
1987	39	85	67	2	154
1988	43	96	76	2	174
1989	48	99	97	6	202
1990	52	107	100	8	215
1991	55	114	112	8	234
1992	61	120	123	8	251
1993	69	133	139	12	284
1994	75	148	168	12	328
1995	80	156	177	12	345
1996	95	175	190	12	377
1997	101	191	196	23	410
1998	113	209	221	23	453
1999	125	223	240	36	499
2000	131	242	250	36	528
2001	143	270	250	36	556
2002	158	311	263	60	634
2003	170	327	294	68	689

Year	Progressive number of SIT Centres	Operative Centres	Number of measurement sectors		Total
			Mechanical Area	Electrical Area	
2004	181	162	355	371	726
2005	190	170	376	370	746
2006	194	170	387	376	763
2007	204	177	429	384	813
2008	210	177	462	383	844

Figure 1 shows the geographical distribution of the SIT Centres at the end of the year 2008.



Fig. 1 - Geographical distribution of SIT Centres (at the end of the year 2008).

Table 2 – SIT Calibration Centres accredited by SIT for temperature, mass and related quantities

Quantity/Device	Calibration Centres																									
	002	004	010	011	012	017	020	023	024	025	030	031	034	039	044	050	051	052	055	056	059	060	062	067	068	070
FORCE																										
- testing machine	■					■		■			■		■					■								
- dynamometers						■						■		■												
- impact pendulum	■					■		■				■						■								
TORQUE METERS																	■	■			■					
HARDNESS	■					■		■									■	■						■		
DEFORMATION	■					■		■				■						■								
MASS																										
- mass		■			■										■		■		■							
- weighing machines		■													■				■							
PRESSURE																										
- manometers										■		■														
- transducers over Patm				■	■	■		■	■	■	■			■			■									
- transducers below Patm																										
ACCELERATION											■												■		■	
TEMPERATURE																										
- thermometers			■	■			■		■		■			■		■	■			■		■				■
- thermometric chain			■	■			■		■		■			■		■	■			■		■				■
- pyrometers	■																									
THERMAL POWER																										
HUMIDITY				■					■																	
VOLUME								■																		
VOLUME FLOW																										
AMOUNT OF SUBSTANCE																										
- concentration of gas mixture																										
- concentration of natural gas mixture																										
VISCOSITY																										

Follows Table 2

Quantity/Devices	Calibration Centres																									
	074	078	080	085	086	090	091	092	093	094	096	097	098	100	104	105	106	108	110	111	112	113	114	115	117	123
FORCE																										
- testing machines						■	■	■					■	■	■										■	
- dynamometers									■																	
- impact pendulum						■																				
TORQUE METERS									■			■														
HARDNESS						■														■						
DEFORMATION						■							■												■	
MASS																										
- mass				■	■																	■			■	
- weighing machines				■	■					■				■								■			■	
PRESSURE																										
- manometers																										
- transducers over Patm									■									■						■		
- transducers below Patm	■														■									■		
ACCELERATION															■						■					
TEMPERATURE																										
- thermometers		■	■								■			■	■						■	■				■
- thermometric chains		■	■											■	■						■	■				■
- pyrometers			■																							
THERMAL POWER															■											
HUMIDITY																	■									■
VOLUME										■									■							
VOLUME FLOW															■											
AMOUNT OF SUSTANCE																										
- concentration of gas mixture																										
- concentration of natural gas mixture																										
VISCOSITY																										

Follows Table 2

Quantità/Devices	Calibration Centres																								
	124	125	126	128	129	134	135	139	141	143	145	147	148	149	150	151	153	154	155	156	157	159	160	161	165
FORCE																									
- testing machines			■					■																■	■
- dynamometers																									
- in pact pendulum																									
TORQUE METERS											■														
HARDNESS																■									■
DEFORMATION			■																						
MASS																									
- mass						■	■					■												■	
- weighing machines						■	■					■	■	■										■	
PRESSURE																									
- manometers																									
- transducers over Patm	■	■			■										■			■						■	
- transducers below Patm																									
ACCELERATION																									
TEMPERATURE																									
- thermometers	■			■				■	■						■					■	■				
- thermometric chains	■			■				■	■						■					■	■			■	
- pyrometers																									
THERMAL POWER																									
HUMIDITY	■			■											■							■			
VOLUME																									
VOLUME FLOW																							■		
AMOUNT OF SUBSTANCE																									
- concentration of gas mixture										■															
- concentration of natural gas mixture																			■						
VISCOSITY																	■								
VELOCITY of ARIA (anemometer)	■																								

Follows Table 2 Quantità/Devices	Calibration Centres																					
	168	169	172	173	175	178	179	182	186	188	190	191	192	193	198	199	200	201	205	208	209	
FORCE																						
- testing machines																						■
- dynamometers	■																					
- impact pendulum																						
TORQUE METERS			■																			
HARDNESS								■														
DEFORMATION																						
MASS																						
- mass								■				■							■			
- weighing machines								■						■								
PRESSURE																						
- manometers																						
- transducers over Patm											■											
- transducers below Patm																						
ACCELERATION							■							■								
TEMPERATURE																						
- thermometers		■									■				■	■	■			■		
- thermometric chains		■									■				■	■	■					
- pyrometers															■							
THERMAL POWER																						
HUMIDITY				■																		
VOLUME					■																	■
VOLUME FLOW																						
AMOUNT OF SUBSTANCE																						
- concentration of gas mixture																						
- concentration of natural gas mixture																						
- water and potassium chloride solutions										■												
- conductivity meters											■											
VISCOSITY																						

Table 3 – SIT Calibration Centres accredited by SIT for dimensional quantities

Quantity/Devices	Calibration Centres																											
	004	006	012	023	028	036	039	041	051	052	066	067	075	079	082	084	085	087	100	101	104	107	110	122	124	129	130	133
LENGTH																												
- gauge blocks	■	■	■	■	■	■	■		■	■		■	■				■					■	■	■			■	■
- rings		■	■	■					■	■			■	■		■						■	■	■				■
- linear meas.		■										■				■												
- callipers	■	■	■		■					■		■	■			■			■				■	■			■	
- threads									■					■														■
- CMM										■	■				■													
- roughness		■						■	■	■		■	■						■				■					
- wavelength																												
- distance of digital images																												
- campioni dentati																												■
- griglie bidimensionali																						■						
FORM AND ROUNDNESS		■	■						■	■													■					
ANGLE																												
- tables and dividers					■				■																			
- levels																												
- blocks and polygons									■																			
- optical plate																												■
SPEED																						■	■					

Follows Table 3

Quantity/Devices	Calibration Centres																				
	136	137	138	142	144	158	166	167	170	172	177	180	181	183	187	189	195	196	197	206	207
LENGTH																					
- gauge blocks	■	■					■						■		■	■		■			
- rings	■	■			■		■	■					■			■			■		■
- linear meas.																					
- callipers	■						■	■					■				■				
- threads																					
- CMM				■								■	■								■
- roughness				■											■						
- wavelength							■														
- distance of digital images										■											
FORM AND ROUNDNESS								■													
ANGLE																					
- tables and divisers																					
- levels																					
- spirit level												■									
- optical plate																					
SPEED																					

Table 4 – SIT Calibration Centres accredited by SIT for frequency and for electrical quantities.

Quantity/Devices	Calibration Centres																		
	004	005	008	010	014	015	019	020	021	022	024	031	040	042	046	049	050	051	052
TIME AND FREQUENCY																			
- frequency		■	■		■	■	■			■			■	■	■	■		■	■
- time interval																			
ELECTRICITY																			
- dc voltage	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
- resistance	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
- resistance in c.a.		■																	
- dc voltage ratio	■				■	■													
- dc current	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
- ac voltage	■	■			■	■	■	■	■	■	■	■	■	■	■	■		■	■
- ac current	■	■			■	■	■	■	■	■	■	■	■	■	■	■		■	■
- electrical capacitance		■		■	■														
- inductance		■			■														
- high voltage	■				■										■				
- high voltage impulsive																			
- ac voltage ratio																		■	
- ac current ratio																		■	
- active power										■				■					
- active energy										■								■	
- reactive power										■									
- reactive energy										■									
- high frequency power		■	■			■	■							■					
- high frequency attenuation		■				■	■												
- stationary wave ratio		■					■												
- electromagnetic field intensity			■																
- oscilloscopes		■																	
- phase															■				

Follows Table 4

Quantity/Devices	Calibration Centres																									
	053	056	057	058	061	064	069	072	073	101	102	103	109	110	112	120	121	128	132	139	140	156	171	174	176	188
TIME AND FREQUENCY																										
- frequency	■	■		■	■	■		■		■		■					■		■		■		■			
- time interval		■								■							■		■							
ELECTRICITY																										
- dc voltage	■	■		■	■	■		■	■	■	■		■	■	■	■	■	■	■	■		■		■		■
- resistance in c.c.	■	■		■	■	■		■	■	■	■		■	■	■	■	■	■	■	■		■		■		■
- resistance in c.a.													■													
- dc voltage ratio																										
- dc current	■	■		■	■	■		■	■	■	■		■	■	■	■	■	■	■	■		■		■		■
- ac voltage	■	■		■	■	■		■	■	■	■		■	■	■	■	■		■	■		■		■		■
- ac current	■	■		■	■	■		■	■	■	■		■	■	■	■	■		■	■		■		■		■
- electrical capacitance																										
- inductance																										
- high voltage																										
- high voltage impulsive				■																						
- ac voltage ratio				■																						
- ac current ratio				■																						
- active power		■									■					■				■					■	
- active energy																										■
- reactive power																										
- reactive energy																										
- high frequency power						■	■					■										■		■		
- high frequency attenuation						■																				
- stationary wave ratio																										
- electromagnetic field intensity								■					■													
- oscilloscopes																										
- phase																										

Table 5 – SIT Calibration Centres accredited by SIT for photometric and acoustical quantities.

Quantity/Devices	Calibration Centres																			
	005	009	042	051	054	062	068	072	076	088	121	124	146	163	164	171	184	185	194	202
PHOTOMETRY																				
- luminous flux		■																		
- reflection spectral factor										■										
- illumination												■								
- luminous intensity												■								
- luminance												■								
- color temperature												■								
- spectral radiation												■								
- spectral irradiation												■								
- spectral sensitivity												■								
- optical power	■							■			■									
- attenuation in optics fibre	■							■			■									
- Lunghezza d'onda	■							■			■									
ACOUSTIC												■								
- sound pressure level			■	■	■	■	■		■			■	■	■	■	■	■	■		■
- pressure level sensitivity			■		■		■		■			■	■		■		■	■		■
- idrophone																			■	

Table 6 – SIT Calibration Centres accredited by SIT-ENEA for ionizing radiations quantities.

Quantity	Calibration Centres						
	029	065	077	099	104	116	162
Exposure	■	■	■	■	■	■	■
Air Kerma	■	■	■	■	■	■	■
Dose equivalent	■	■	■	■	■	■	■
Exposure rate	■	■	■	■	■	■	■
Air Kerma rate	■	■	■	■	■	■	■
Dose equivalent rate	■	■	■	■	■	■	■

3 – CALIBRATION CERTIFICATES

Table 7 reports the number of SIT calibration certificates issued in 2008 by the SIT Centres in the accredited measurement sectors (concerning second line standards and measuring instruments, other instruments received for periodic calibration). They were in total 85133 (to be compared with 77122 in 2007). Calibration certificates issued by Mechanical laboratories were 63026 and by Electrical laboratories 22107. The division of the number of certificates is made according to the region where they were issued.

Table 8 gives the number of SIT calibration certificates issued yearly in the past. Fig. 2 shows the number of SIT calibration certificates issued in the past years by SIT Centres.

Table 9 reports the number of non-SIT calibration certificates issued in 2008 by the SIT Centres in accredited measurement sectors. In total they were 222539 (to be compared with 175868 in 2007).

Table 10 gives the total number of non-SIT certificates issued by SIT Centres in the last years.

**TABLE 7 - SIT CALIBRATION CERTIFICATES ISSUED BY SIT CENTRES
IN ACCREDITED MEASUREMENT SECTORS IN 2008**

<i>Italian/Regions</i>	01	02	03	04	05	06	07	08	09	10	11	12	Total SIT
ABRUZZO	87	0	0	0	0	0	0	0	0	0	0	0	87
BASILICATA	0	0	0	0	0	0	0	0	0	0	0	0	0
CALABRIA	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMPANIA	0	0	0	8	208	0	0	0	337	30	0	0	623
EMILIA ROMAGNA	5139	655	2839	2	512	0	0	0	0	3767	1354	36	14304
FRIULI VENEZIA GIULIA	0	149	0	0	0	0	0	0	0	0	0	0	149
LAZIO	1000	180	343	74	343	52	0	0	4	24	0	38	2058
LIGURIA	167	0	1001	0	0	186	0	0	0	960	0	0	2314
LOMBARDIA	6117	5969	13065	1959	6870	609	0	155	3059	9317	215	869	48204
MARCHE	34	0	119	0	0	0	0	0	0	0	0	0	153
MOLISE	0	0	0	0	0	0	0	0	557	0	0	0	557
PIEMONTE	1112	480	3751	20	121	107	0	5	886	842	0	9	7333
PUGLIA	36	0	0	0	0	0	0	0	0	0	0	0	36
SICILIA	0	0	21	4	64	0	0	0	98	61	0	0	248
TOSCANA	128	0	74	565	732	0	0	1	74	186	17	1250	3027
TRENTINO ALTO ADIGE	0	0	7	0	0	0	0	0	0	0	0	0	7
UMBRIA	0	0	7	0	0	0	0	0	0	0	0	0	7
VENETO	552	366	186	0	238	0	0	281	1163	1513	0	171	4470
<i>Foreign Countries</i>	1417	106	21	0	0	0	0	0	0	12	0	0	1556
TOTAL	15789	7905	21434	2632	9088	954	0	442	6218	16712	1586	2373	85.133

The measurement sectors for dissemination are grouped according to the physical quantities involved as follows:

01 - dimensional and angular quantities

02 - mass, density, flow rate

03 - force and related quantities

04 - time and frequency

05 - direct and low frequency electrical quantities up to 1 MHz

06 - radiofrequency electrical quantities above 1 MHz

07 - magnetic and dielectric quantities

08 - photometric quantities

09 - acoustical quantities

10 - thermal quantities

11 - ionising radiations

12 - other types (e.g., electromagnetic compatibility, amount of substance, humidity).

*Table 8 – SIT CALIBRATION CERTIFICATES ISSUED
YEARLY BY THE SIT CENTRES IN THE PAST YEARS*

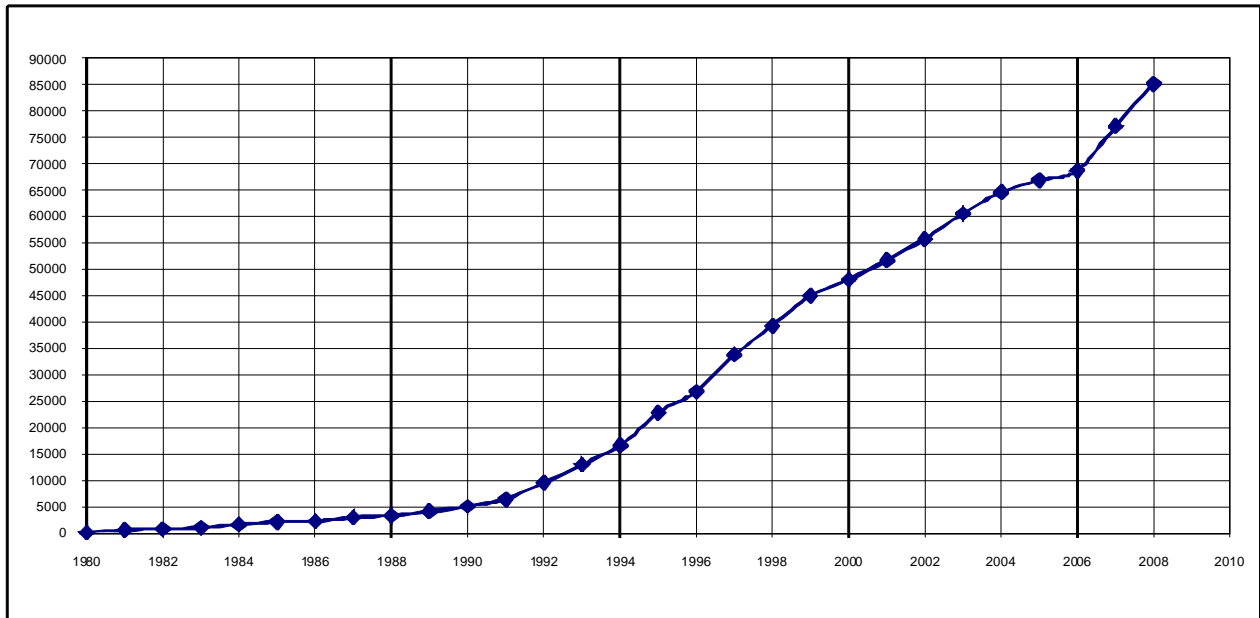


Fig. 2 – Number of calibration certificates issued by the SIT Centres in the past years.

TABLE 9 NON-SIT CALIBRATION CERTIFICATES ISSUED BY SIT CENTRES IN ACCREDITED MEASUREMENT SECTORS IN 2008

<i>Italian/Regions</i>	01	02	03	04	05	06	07	08	09	10	11	12	<i>Total SIT</i>
ABRUZZO	879	0	0	0	0	0	0	0	0	0	0	0	879
BASILICATA	0	0	0	0	0	0	0	0	0	0	0	0	0
CALABRIA	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMPANIA	0	0	0	0	5091	0	0	0	7	850	0	0	5948
EMILIA ROMAGNA	27568	0	2892	0	977	0	0	0	0	1553	541	297	33828
FRIULI VENEZIA GIULIA	0	584	0	0	0	0	0	0	0	0	0	0	584
LAZIO	1233	399	458	126	688	418	0	0	7	269	0	5	3603
LIGURIA	519	0	138	0	0	550	0	0	0	145	0	0	1352
LOMBARDIA	62318	2828	3327	1938	13441	2916	0	1260	144	21772	73	21586	131603
MARCHE	758	0	262	0	0	0	0	0	0	0	0	0	1020
MOLISE	0	0	0	0	0	0	0	0	0	0	0	0	0
PIEMONTE	6477	34	630	70	216	605	0	103	131	432	0	516	9214
PUGLIA	0	0	0	0	0	0	0	0	0	0	0	0	0
SICILIA	0	0	228	10	120	0	0	0	0	144	0	0	502
TOSCANA	144	0	549	313	2152	0	0	0	0	1782	2172	0	7132
TRENTINO ALTO ADIGE	0	0	24	0	0	0	0	0	0	0	0	0	24
UMBRIA	0	0	0	0	0	0	0	0	0	0	0	0	0
VENETO	23237	135	26	0	134	0	0	305	410	205	0	32	24484
<i>Foreign Countries</i>	1018	1050	158	0	0	0	0	0	0	140	0	0	2366
TOTAL	124151	5030	8692	2457	22839	4489	0	1668	699	27292	2786	22436	222.539

TABLE 10 – NON-SIT CERTIFICATES ISSUED BY SIT CENTRES IN THE LAST YEARS

Year	Number of Certificates
1984	6000
1985	9100
1986	9888
1987	13137
1988	22449
1989	20014
1990	23367
1991	26645
1992	28855
1993	37198
1994	45982
1995	56955
1996	70045
1997	91757
1998	105429
1999	104831
2000	91608
2001	98589
2002	118035
2003	139734
2004	140716
2005	149050
2006	158500
2007	175868
2008	222539

4 - SIT COMMITTEE AND ACCREDITATION COMMITTEE

During 2008 the SIT Executive Committee held two meetings issuing opinions on new accreditations, renewals and extensions. This Committee was formed by P.Francisci, L. Neri, R. Marchesi, G.F. Molinar, M. Mosca, P. Soardo, G. La Paglia and L. Bianchi. A new SIT Committee was elected in 2008 and it held its meeting in July 2008. The Accreditation Committee was composed as follows: R. Marchesi (President), M. Mosca (responsible of SIT), A. Menditto, C. Cassiagio, G.F. Molinar Min Beciet, P. Francisci and it held two meetings during 2008. The executive operational responsibility of SIT in 2008 was M. Mosca (responsible for SIT), G. La Paglia (Responsible of Electrical Area), L. Bianchi (Responsible of Mechanical Area) and R. Garlasco (SIT Quality Manager).

5 - ASSESSORS IN THE ACCREDITATION PROCEDURES

Assessors in the accreditation procedures were:

MECHANICAL AREA

- M.P. Sassi, A. Balsamo, M. Pometto, G.M. Picotto, D. Corona (length quantities);
- W. Pasin (roundness quantities);
- M. Pisani (angle quantities, speed);
- G. Cignolo (volume quantities);
- F. Mazzoleni, A. Germak, (acceleration, hardness quantities);
- C. Ferrero (force quantities);
- L. Bianchi (technical Secretary – pressure quantities);
- A. Leka (Technical assessor – mass quantities);
- R. Mugno (technical Secretary – length quantities);
- M. Bergoglio, G.F. Molinar (vacuum and pressure quantities);
- A. Mangano, V. Fernicola, L. Iacomini, F. Lanza (temperature quantities);
- V. Fernicola, M. Banfo (humidity quantities);
- L. Bergamaschi (amount of substance);
- M. Sega (amount of substance);
- R. Malvano (air velocity);
- P. Spazzini (air velocity).

ELECTRICAL AREA

- F. Cordara (technical Secretary - frequency);
- G. Brida (photometrical quantities);
- G. Vizio (high-frequency electromagnetic quantities,
- P. Terzi, (high-frequency electromagnetic quantities, speed);
- G. La Paglia (technical Secretary – l.f. electrical quantities, high voltages and heavy currents);
- R. Cerri, G.C. Bosco, C. Cassiagio (l.f. electrical quantities);
- G. Crotti (high voltages and heavy currents);
- F. Galliana (system assessor);
- L. Toso (system assessor);
- C. Guglielmone, A. Agostino (acoustical quantities);
- F. Durbiano (chemical quantities);
- M.P. Toni, M. Bovi (X-rays and γ - radiations).

EXTERNAL ASSESSORS

- M. Bettinelli (chemical quantities);
- C. Costelli (length quantities);
- G. Ficco (mass quantities) ;
- P. Fungo (system assessor);
- A. Marinello (system assessor);
- I. Tombini (mass quantities)

EXPERTS

- V. Pettiti (time interval).

6 - INTERLABORATORY COMPARISONS

Most of the 110 interlaboratory comparisons performed in 2008 were bilateral for first accreditation, extension or renewal. Among these, a certain number of multi laboratory intercomparison have been performed as indicated in the table 12.

TABLE 12 – INTERLABORATORY COMPARISON PERFORMED IN 2008

<i>Physical quantity</i>	
Length	18
Mass and volume	17
Time, frequency	13
High frequency/Photometry	3
Electrical measurements	14
Temperature and humidity	14
Force, hardness and pressure	28
Acoustics	2
Chemistry	1
<i>Total</i>	<i>110</i>

7 - INTERNATIONAL AND NATIONAL ACTIVITIES

International activity was carried out mainly in co-operation with the Calibration Services operating in the European countries. It is worth of mentioning the participation in the EA General Assembly and EA Multilateral Agreement Committee (M. Mosca) and continuous reciprocal consulting. SIT is also represented at EA LC Committee meetings by F. Cordara and L. Bianchi.

Co-operation with SINAL, the Italian System for the Accreditation of Testing Laboratories, has been developed through the participation in the SINAL Central Technical Committee and in the joint assessment of commonly accredited Laboratories. La Paglia is a member of the accreditation Committee of SINAL.

The participation in ILAC Assemblies and works is guaranteed by the President of FIDEA.

G. La Paglia and F. Cordara have participated in the activities of the ISO Commission about the Standard 17043.

8 – DESCRIPTION OF ECONOMICAL SOURCES OF INCOME

The budget of SIT, as it was arranged by INRIM Consiglio di Amministrazione (Administration Council - Board of Directors), has been discussed and approved by SIT Committee in its meeting held in Turin, July 8th, 2009. In the following table the data are summarized. All the amounts are in Euro.

<i>Description</i>	<i>2007</i>	<i>2008</i>	<i>2009 (prev)</i>
<i>No. of :</i>			
<i>operative SIT Centers at the end of the year</i>	<i>177</i>	<i>177</i>	<i>177</i>
<i>renounces and withdrawals</i>	<i>3</i>	<i>6</i>	<i>4</i>
<i>accredited sectors</i>	<i>813</i>	<i>844</i>	<i>850</i>
<i>SIT certificates issued by SIT Centres</i>	<i>77 122</i>	<i>85 133</i>	
<i>new accredited laboratories</i>	<i>10</i>	<i>6</i>	<i>4</i>
<i>renewals</i>	<i>45</i>	<i>18</i>	<i>46</i>
<i>surveillance visits</i>	<i>88</i>	<i>87</i>	<i>103</i>
<i>extensions</i>	<i>24</i>	<i>24</i>	<i>10</i>
<i>linterlaboratory comparisons</i>	<i>102</i>	<i>110</i>	<i>110</i>
<i>Invoices (k€) related to the accreditation activity</i>	<i>844</i>	<i>1 175</i>	<i>986</i>
<i>Expenditures (k€)</i>	<i>208</i>	<i>155</i>	<i>222</i>
<i>- management</i>	<i>130</i>	<i>87</i>	<i>127</i>
<i>- investment</i>	<i>39</i>	<i>25</i>	<i>40</i>
<i>- travel cost</i>	<i>39</i>	<i>43</i>	<i>55</i>