

ATTIVITÀ ANNUALE DEL SIT

SIT activity in 2007

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SIT ACTIVITY IN 2007

Abstract

The main results of the SIT activity during 2007 are presented. Specifically, ten new laboratories were approved as SIT Calibration Centres, numbered from 195 through 204. The accredited measurement sectors were 813 and the SIT certificates issued by the SIT Centres were 77 122 (68 687 in 2006). The staff of the SIT Centres were 679 units. Some of the SIT Centres participated in interlaboratory comparisons organised for first accreditation, renewal or extension of accreditation, for a total number of 102 comparison exercises.

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

ATTIVITA' DEL SIT NEL 2007

Sommario

Vengono presentati i principali risultati ottenuti nell'attività SIT svolta nel 2007. In particolare, sono stati accreditati 10 nuovi laboratori come Centri di taratura SIT, contrassegnati con i numeri progressivi da 195 a 204. I settori di misura accreditati sono stati 813 e i certificati di taratura SIT emessi dai Centri SIT sono stati 77 122 (68 687 nel 2006). Il personale coinvolto nell'attività dei Centri SIT è stato valutato di 679 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 102.

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).

It is worth of mentioning that new accreditation sectors have been granted in the following fields:
Time meters for traffic lights and air velocity.

2 - LABORATORY ACCREDITATION

2.1 - New Laboratories

Ten laboratories were accredited as SIT Centres during 2007, specifically:

- Center 195 at RETE FERROVIARIA ITALIANA S.p.A. Officina Nazionale Apparecchiature Elettriche. (Bologna);
- Center 196 at SITEC s.r.l. (Molfetta, Bari);
- Center 197 at UNILAB Laboratori Industriali s.r.l. (Marghera, Venezia);
- Centre 198 at DELTA STRUMENTI s.r.l. (Gemonio, Varese);
- Center 199 at STAZIONE SPERIMENTALE PER L'INDUSTRIA DELLE CONSERVE ALIMENTARI IN PARMA (Angri, Salerno);
- Center 200 at SERTEC s.r.l. (Livorno);
- Center 201 at Centre National des Technologies et du Consulting (Boumerdès, Algérie);
- Center 202 at 01 dB Italia s.r.l. (Campodarsego, Padova);
- Center 203 at Università degli Studi di Trento - Centro Universitario di Metrologia (CUM). (Povo, Trento);
- Center 204 at AUTOMAX s.n.c. di Andrea Scatizzi & C. (Arezzo)

2.2 - Renewals and maintenance

Renewal involved 45 Centres. Surveillance visits were 88.

2.3 - Extensions of accreditation

The accreditation was extended to 23 new measurement sectors of 19 SIT Centres, specifically:

- Wave length, optical fiber power and attenuation for centre 005 at Agilent Technologies Italia S.p.A. (Cernusco sul Naviglio, Milano);
- Temperature and humidity for Centre 011 at GEFRAN S.p.A. (Provaglio d'Iseo, Brescia);

- Dc voltage, ac voltage, dc current, ac current, resistance in c.c., ac high voltage, dc high voltage for centre 019 at Aviatronik (Samarate, Varese);
- acceleration for Centre 030 at SICI s.r.l. (Merate, Lecco);
- length for Centre 052 at CERMET (Cadriano-Granarolo E., Bologna);
- acceleration for Centre 068 at LCE (Opera, Milano);
- time interval for Centre 101 at TESI s.r.l. (Subbiano, Arezzo);
- pressure for Centre 106 at Università degli Studi di Cassino (Cassino);
- length for Centre 110 at TEC EUROLAB (Campogalliano, Modena);
- pressure for Centre 114 at Dott. Ing. Scandura & FEM s.r.l.(Rodano Millepini, Milano);
- mass for Centre 117 at CIBE s.r.l. (Legnano, Milano);
- air velocity for Centre 124 at DELTA OHM s.r.l. (Caselle di Selvazzano, Padova);
- humidity for Centre 150 at ASIT INSTRUMENTS s.r.l. (Orbassano, Torino);
- amount of substance for Centre 155 at Snam Rete Gas S.p.A. (San Donato Milanese, Milano);
- dc current, ac current for Centre 156 at ENEA Trisaia (Rotondella, Matera);
- length for Centre 166 at UTENSIL LINE s.r.l. (Collegno, Torino);
- sound pressure level for Centre 171 at Metrix Engineering di Leto Giuseppe (S. Stefano Quisquina, Agrigento);
- length for Centre 181 at MICROTEC s.n.c. (Marano Vicentino, Vicenza);
- length for Centre 189 at FOX BIT s.r.l. (Napoli).

2.4 – Suspensions and withdrawals

The accreditation of the following Centres was suspended during 2007: Centre 010 at ENEA Casaccia (ROMA), Centre 029 at ENEA (Bologna), Centre 061 at Vitrociset S.p.A. (Assemini, Cagliari), Centre 118 at A.M.I. – Aeronautica Militare Italiana (Pomezia, Roma), Centre 131 at Nirlab Clampco Sistemi s.r.l. (Basiliano, Udine), Centre 153 at EN.CO. s.r.l. (Spinea, Venezia), Centre 156 at ENEA TRISAIA (Rotondella, Matera) for temperature quantities, Centre 158 at Federal Trade S.p.A. (Segrate, Milano), 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).

The accreditation of the following Centres has been withdrawn: Centre 050 at Endesa Italia s.r.l. (Terni) and Centre 127 at WIKA Italiana s.r.l (Rho, Milano).

The Centre 095 at GAMBETTI KENOLOGIA s.r.l. (Binasco, Milano) has renounced the accreditation during 2007.

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), EMIT LAS (Milan) and Istituto Guglielmo Tagliacarne (Rome). An internal training course for SIT assessors has been organized, in order to upgrade knowledge of the SIT documentation (Doc-504). On 2007-02-13 and 14 the XXIII Meeting of SIT Centres was held in the meeting rooms of Strada delle Cacce 91, also in the framework of the Conference “Metrologia e Qualità – Metrology and Quality” In this occasion, as usual, meetings of technical subcommittees and working groups were held at the presence of SIT technical secretaries and technical assessors.

2.6 – Statistics

Operative Centres accredited by SIT at the end of 2007 were 177. Calibration laboratories accredited by the Mechanical Area at the end of 2007 were 126 and by the Electrical one 69. 18 laboratories were accredited by both Areas.

Approved measurement sectors were 813 (429 and 384 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 2007.

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

Figure 1 shows the geographical distribution of the SIT Centres at the end of the year 2007.



Fig. 1 - Geographical distribution of SIT Centres (at the end of the year 2007).

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	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	203	
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																												
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	204
LENGTH																				
- gauge blocks	■	■					■						■		■	■			■	
- rings	■	■			■		■	■					■			■				■
- linear meas.																				
- callipers	■						■	■					■				■			
- threads																				
- CMM			■								■	■								
- roughness				■										■						
- wavelength						■														
- distance of digital images									■											
FORM AND ROUNDNESS								■												
ANGLE																				
- tables and dividers																				
- 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	104	109	110	112	118	120	121	128	131	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	104	121	124	146	158	163	164	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 2007 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 77122 (to be compared with 68687 in 2006). Calibration certificates issued by Mechanical laboratories were 56967 and by Electrical laboratories 20155. 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 2007 by the SIT Centres in accredited measurement sectors. In total they were 175868 (to be compared with 158 500 in 2006).

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 2007**

<i>Italian/Regions</i>	01	02	03	04	05	06	07	08	09	10	11	12	Total SIT
ABRUZZO	115	0	0	0	0	0	0	0	0	0	0	0	115
BASILICATA	0	0	0	0	0	0	0	0	0	0	0	0	0
CALABRIA	0	3	0	0	0	0	0	0	0	0	0	0	3
CAMPANIA	15	0	0	80	201	0	0	0	253	213	0	0	762
EMILIA ROMAGNA	4939	574	2721	0	459	0	0	0	0	3336	1118	0	13147
FRIULI VENEZIA GIULIA	0	94	0	0	0	0	0	0	0	0	0	0	94
LAZIO	604	269	304	113	270	19	0	0	3	502	0	0	2084
LIGURIA	205	0	858	37	32	0	0	0	0	1091	0	159	2382
LOMBARDIA	5802	5283	11352	1829	6032	636	0	125	2996	8913	180	563	43711
MARCHE	53	0	93	0	0	0	0	0	0	0	0	0	146
MOLISE	0	0	0	0	0	0	0	0	538	0	0	0	538
PIEMONTE	645	478	2685	16	112	85	0	0	1001	517	0	46	5585
PUGLIA	18	0	0	0	0	0	0	0	0	0	0	0	18
SICILIA	0	0	20	3	54	2	0	0	53	16	0	0	148
TOSCANA	107	3	73	354	750	0	0	0	154	41	12	1300	2794
UMBRIA	0	0	18	0	0	0	0	0	0	0	0	0	18
VENETO	431	253	170	0	213	0	0	296	1057	1306	0	76	3802
Foreign Countries	1650	95	20	0	0	0	0	0	0	10	0	0	1775
TOTAL	14584	7052	18314	2432	8123	742	0	421	6055	15945	1310	2144	77122

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*

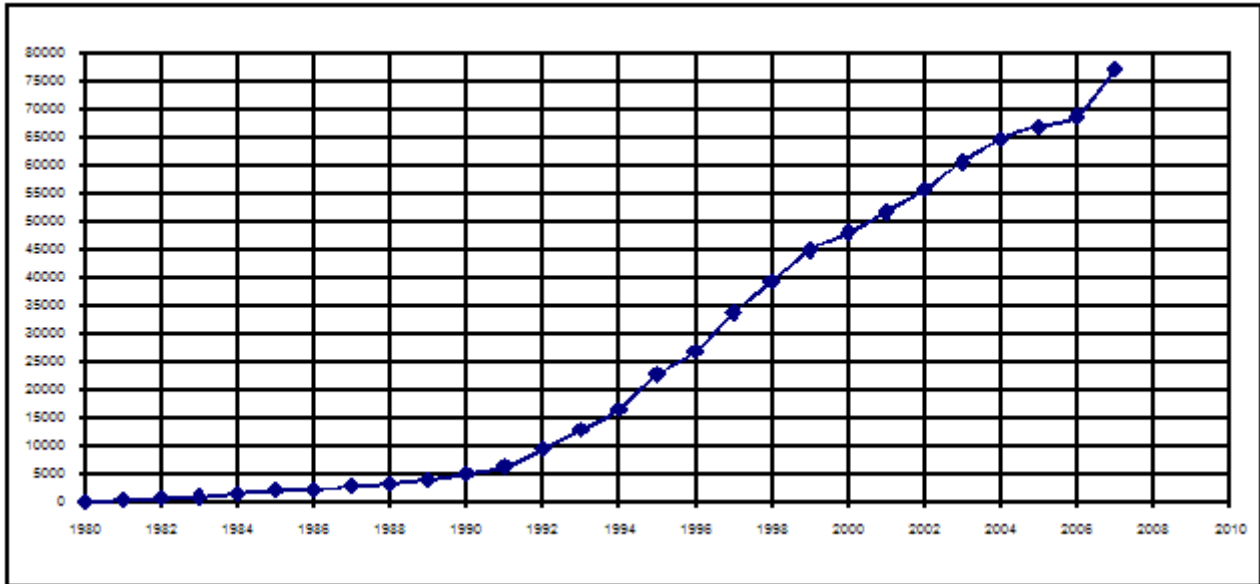


Fig. 2 – Number of calibration certificates issued by the SIT Centres in the past years.

TABLE 9 NON-SIT CALIBRATION CERTIFICATES ISSUED BY SIT CENTRES IN ACCREDITED MEASUREMENT SECTORS IN 2007

<i>Italian/Regions</i>	01	02	03	04	05	06	07	08	09	10	11	12	<i>Total SIT</i>
ABRUZZO	0	0	0	0	6	0	0	0	0	0	0	0	6
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	6	0	0	0	4412	0	0	0	10	154	0	0	4582
EMILIA ROMAGNA	24059	40	3894	0	1044	0	0	0	0	1430	398	0	30865
FRIULI VENEZIA GIULIA	0	248	0	0	0	0	0	0	0	0	0	0	248
LAZIO	378	277	251	71	606	312	0	0	0	451	0	0	2346
LIGURIA	364	0	136	2	37	0	0	0	0	84	0	950	1573
LOMBARDIA	52933	24268	2838	2906	12399	3318	0	1611	142	17049	49	976	118488
MARCHE	982	0	316	0	0	0	0	0	0	0	0	0	1298
MOLISE	0	0	0	0	0	0	0	0	0	0	0	0	0
PIEMONTE	5445	40	626	50	256	715	0	0	189	470	0	676	8467
PUGLIA	0	0	0	0	0	0	0	0	0	0	0	0	0
SICILIA	0	0	222	5	129	0	0	0	6	83	0	0	445
TOSCANA	51	28	416	214	1593	0	0	0	0	283	0	0	2585
TRENTINO ALTO ADIGE	0	0	22	0	0	0	0	0	0	0	0	0	22
UMBRIA	0	0	333	0	0	0	0	0	0	0	0	0	333
VENETO	1554	35	17	0	108	0	0	120	420	227	0	30	2511
<i>Foreign Countries</i>	949	850	150	0	0	0	0	0	0	150	0	0	2099
TOTAL	86721	25786	9221	3248	20590	4345	0	1731	767	20381	446	2632	175.868

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

4 - SIT EXECUTIVE COMMITTEE AND CENTRAL SECRETARIAT

During 2007 the SIT Executive Committee held two meetings. It issued opinions on new accreditations, renewals and extensions. The SIT Executive Committee was formed by P.Francisci, L. Neri, R. Marchesi, G.F. Molinar, M. Mosca, P. Soardo, G. La Paglia and L. Bianchi. The executive operational responsibility of SIT in 2007 was M. Mosca (responsible for SIT Central Secretariat), G. La Paglia (Responsible of Electrical Area), L. Bianchi (Responsible of Mechanical Area) and G. Bongiovanni (SIT Quality Manager).

5 - ASSESSORS IN THE ACCREDITATION PROCEDURES

Assessors in the accreditation procedures were:

MECHANICAL AREA

- M.P. Sassi, E. Malgeri, A. Balsamo, M. Pometto, G.M. Picotto (length quantities);
- W. Pasin (technical Secretary - angle, 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 (system assessor);
- R. Mugno (technical Secretary – length quantities);
- M. Bergoglio, G.F. Molinar (vacuum and pressure quantities);
- A. Mangano, V. Fericola, L. Iacomini, F. Lanza (temperature quantities);
- V. Fericola (humidity quantities);
- 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. Cassiogo (l.f. electrical quantities);
- G. Crotti (high voltages and heavy currents);
- F. Galliana (technical Secretary);
- L. Toso (technical Secretary);
- C. Guglielmone, A. Agostino (acoustical quantities);
- F. Durbiano (chemical quantities);
- M.P. Toni, M. Bovi (X-rays and γ - radiations).

EXTERNAL ASSESSORS

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

EXPERTS

- L. Bergamaschi (chemical quantities);
- V. Pettiti (time interval).

6 - INTERLABORATORY COMPARISONS

Most of the 102 interlaboratory comparisons performed in 2007 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 2007

<i>Physical quantity</i>	
Length	19
Speed	2
Mass and volume	9
Time, frequency	13
High frequency/Photometry	3
Electrical measurements	6
Temperature and humidity	9
Force, hardness and pressure	31
Acoustics	4
Chemistry	3
Ionising radiation	3
<i>Total</i>	<i>102</i>

Among these, a certain number of multi laboratory intercomparison have been performed:

<i>Transferring standard</i>	<i>Number of laboratories involved</i>
Short gauge blocks	5
Strain gauge	9
Torque wrench	8
Rings and plugs	23
Coordinate measurement machine	8

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.

SIT participates actively in the activities of FIDEA (*Federazione Italiana degli Enti di Accreditamento*).

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 7th, 2008. In the following table the data are summarized. All the amounts in Euro.

Year	2006	2007	2008 (prev)	2009 (prev)
Invoices	947 000	980 000	915 000	950 000
Government Contribution	162 000	109 000	200 000	300 000
Salaries	720 000	712 000	511 000	600 000
INRIM Assessors			125 000	110 000
Expenditures for functioning and investment, of which:	389 000	377 000	424 000	490 000
instruments			40 000	55 000
external experts			48 000	50 000
contract of cooperation			82 000	85 000
travels			56 000	50 000
other expenditures			34 000	150 000
directional function			0	120 000