



# **Programme**

Swiss Tunnel Colloquium: Tuesday, June 10, 2008

**Swiss Tunnel Congress:** Wednesday, June 11, 2008

**Excursions:** Thursday, June 12, 2008

Traduction simultanée de l'allemand au français Translation from German to English

# **Swiss Tunnel Congress 2008**

Each year the Swiss Tunnelling Society organises the Swiss Tunnel Congress in the Lucerne Culture and Convention Centre (KKL Luzern). Over the past years, this congress has developed into the key event for Swiss tunnel builders. This congress is a result of the Alp Transit Conferences.

In 2007 more than 740 participants from 14 nations listened to the high-class presentations held. Additionally, the traditional excursions to large construction sites in Switzerland and to Germany took place.

The STC 2008 is presented by the Swiss Tunnel Congress Committee. It's board of management consists of:

• Heinz Ehrbar, Dipl. Ing. (degreed engineer)

• Martin Bosshard, Dipl. Ing.

• Prof. Dr. Georg Anagnostou

• François Bertholet, Dipl. Ing.

Swiss Tunnel Congress

**Swiss Tunnel Congress** 

Swiss Tunnel Colloquium

Swiss Tunnel Colloquium

### **Advisory Board**

The Advisory Board does not only help to arrange interesting projects and high-class speakers from abroad, but also ensures the high quality of the presentations.

The STC incorporates the following members:

- Manuel Arnaiz, AETOS
- Prof. Dr. Robert Galler, ITA Austria
- Prof. Dr. Alfred Haack, STUVA/DAUB
- Prof. Pietro Lunardi, SIG
- Jean Philippe, AFTES





We are delighted to welcome you to this year's Swiss Tunnel Congress here in the Lucerne Culture and Convention Centre (KKL Luzern) once again. I'm pleased to inform you, that we were able to arrange an interesting programme with remarkable projects and speakers for the STC 2008 so as to keep our high stand.

Thanks to the newly founded Advisory Board we can present more projects from abroad to you, this year especially from Italy, France, Austria and the United States. Needless to say, foreign-language presentations will be translated simultaneously.

For the first time in the history of the STC, an STC-Colloquium will be taking place. The course which deals with the subject of "Grouting as support measure during excavation" is not only addressed to students, but also to experts. We are pleased that this half-day course already enjoys great interest.

Since Europe will be in a football fever in June and on the Congress evening a match between Switzerland and Turkey will take place, we have decided to reorganize our traditional dinner and broadcast the match on large screens. Of course, we all hope for a victory of our national team. We will see!

The exhibition will take place similar to last year's. The two display areas in the foyer of the Lucerne hall and the Lucerne terrace have been booked for our exhibitors. We certainly hope the weather will be better this year.

The Lucerne Culture and Convention Centre and the City of Lucerne are worth a trip without the STC as well. During your stay at the STC, do not miss the opportunity to visit the beautiful Lake of Lucerne and all the places of interest around the City of Lucerne.

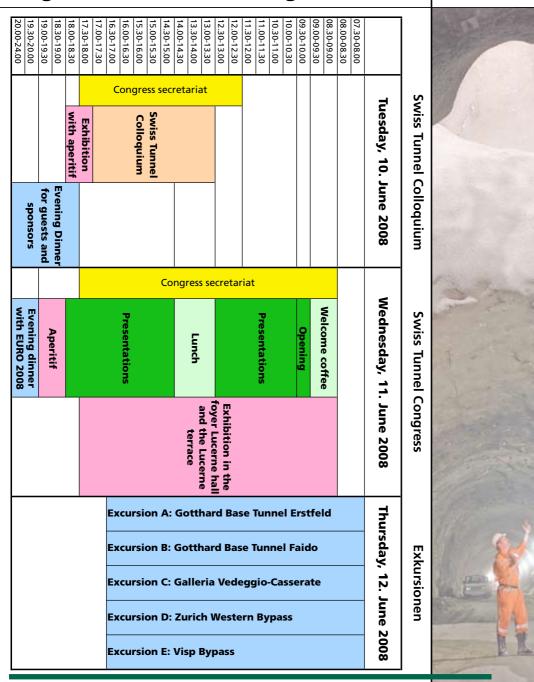
For me, the STC always is a good opportunity to meet friends from Switzerland and abroad and join them at the exhibition or at the dinner, in order to exchange some thoughts and ideas. I'm really looking forward to this and hope that you feel the same way.

This short introduction to the STC would not be complete without thanking all the promoters, speakers and especially the sponsors for their commitment and support. We are all aware that the congress would not take place without your support. That is why I would like to say thank you very much.

STS Swiss Tunnelling Society

Felix Amberg President

# **Programm Swiss Tunnel Congress 2008**





# **Swiss Tunnel Colloquium 2008**

For the first time a STC-Colloquium will take place. The colloquium deals with specific subjects and features an educational character. The topic for the year 2008 is: Grouting as support measure during excavation.

Besides an overview provided by a representative of an university, designers, entrepreneurs and suppliers have the opportunity to present their know-how. The topics of the individual presentations will be coordinated, so that the presented material provides an overall view. The colloquium addresses students as well as experts.

12.00 Opening of congress secretariat

(at the floor before the colloquium room)

13.00 Welcome and Opening

Prof. Dr. Georg Anagnostou, Institute for Geotechnics

Swiss Federal Institute of Technology Hönggerberg

### Grouting as support measure during excavation

Speakers of the Colloquium:

View of university – Overview Georg Anagnostou, Prof. Dr. Institute for Geotechnics Swiss Federal Institute of Technology Hönggerberg

View of designer –
Grouting technology measures for construction,
lining and refurbishment of tunnels
Roger Bremen, Dr. Civil Engineer

Lombardi SA

View of building contractor
Practical application, methodology, equipment
Kurt Kogler, Ing.

INSOND - Spezialtiefbau Ges.m.b.H.

View of manufacturer Material technology of compaction grouting and permeation grouting Michael Leahey, Dipl. Natw. ETH

Sika Services AG

17.30 Closing words – followed by exhibition with an

aperitif at the foyer Lucerne hall and the Lucerne terrace

18.30 End of the STS-Colloquium







# **Swiss Tunnel Congress 2008**

08.30 Opening of congress secretariat (in the foyer of the Lucerne hall)

08.30 Welcome coffee

09.30 Welcome and opening ceremony

Felix Amberg

President, Swiss Tunnelling Society

Opening presentation

Thomas Held, Dr. phil.

Avenir Suisse, Zurich

### Morning meeting chaired by:

Hanspeter Stadelmann, Civil Engineer ETH/SIA

# **MORNING PROGRAMME**

10.10 Status of work on the Gotthard-Axis –
Major projects and the public procurement

Renzo Simoni, Dr. sc. techn., Civil Engineer ETH/SIA

AlpTransit Gotthard AG, Lucerne

10.30 Gotthard Base Tunnel – Geological experiences

Hans Jakob Ziegler, Dr. phil. nat. Geologe

Kellerhals + Haefeli AG, Bern

10.50 - 11.20 Coffee break

# Meeting programme, June 11, 2008



11.40	Gotthard Base Tunnel – Break-through Amsteg – Sedrun Logistic challenges Ralf Grand, Civil Engineer ETH/SIA, Industrial Engineer FH Gähler und Partner AG, Ennetbaden
12.00	The squeezing sections in the Tavetscher-Zwischenmassiv (TZM)-North of the Gotthard Base Tunnel – Design and realization  Kalman Kovàri, Prof. Dr.  Consulting Engineer  Heinz Ehrbar, Civil Engineer ETH/SIA  Alp Transit Gotthard AG, Lucerne
12.20	Section Faido – Experience with the TRM drive
12.20	Section Faido – Experience with the TBM drive  Olivier Böckli, Civil Engineer ETH/SIA  Implenia Bau AG, Aarau
12.40	A9 Visp Bypass – Challenging tunnel drive in hard rock and soft ground  Alex Schneider, Dr. sc. techn., Civil Engineer ETH/SIA  Rothpletz Lienhard + Cie AG, Olten  Discussion

13.00 - 14.30 Lunch in the Lucerne Culture and Convention Centre

# **Swiss Tunnel Congress 2008**

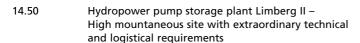
### Afternoon meeting chaired by:

Peter Teuscher, Civil Engineer HTL/SIA

### **AFTERNOON PROGRAMME**

14.30 The new underground line B1 in Rome: Tunnelling and deep excavations within alluvial soils in urban environment. Design approach and site performance

> Andrea Sciotti, Mining Engineering degree Roma Metropolitane S.r.l., Rome Italy



Hans Köhler, Civil Engineer

Porr Technobau und Umwelt GmbH, Vienna



Werner Kradolfer, Civil Engineer ETH/SIA Rothpletz Lienhard + Cie AG, Olten

15.30 Durchmesserlinie Zurich - From the idea to implementation, lessons learned

> Roland Kobel, Civil Engineer HTL/SIA SBB AG, Zurich

Martin Bosshard, Civil Engineer ETH/SIA

Basler & Hoffmann AG, Esslingen











# Meeting programme, June 11, 2008



	15.50	Flood Relief Tunnel Thun – Challenges of the hydro shield method Daniel Kohler, Civil Engineer ETH/SIA, industrial engineer. FH Prader Losinger SA, Sion/Zürich
	16.10 - 16.40	Coffee break
	16.40	Tunnel Maurice Lemaire à Saint-Marie aux Mines – Civil works serving security purposes André Thiboud, Diplôme d'ingénieur des TPE Travaux Publics de l'Etat APRR, Direction des Grands Investissements et de la
	17.00	Adlertunnel – Design competition for refurbishment  Peter Jedelhauser, Civil Engineer ETH  SBB AG, Bern
	17.20	Arrowhead tunnels project – Piercing the mountain in very adverse ground and water conditions  Brian Fulcher, BSc in Mechanical Engineering  Shea Construction Company, Walnut (California)
	17.40	Discussion
To the second	18.00	Closing Words Felix Amberg President STS
	18.15	followed by cocktails in front of the Culture and Convention Centre Luzern

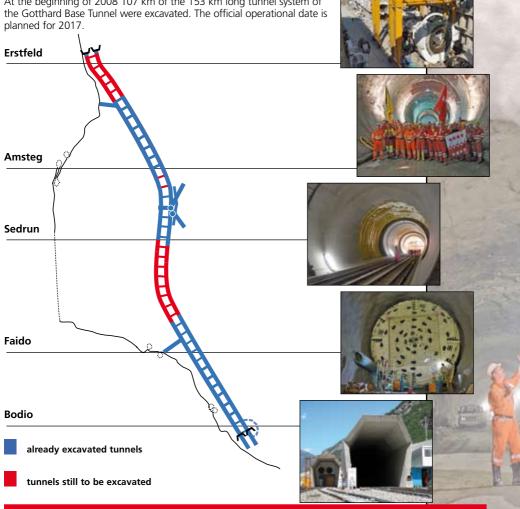


www.alptransit.ch

### **Gotthard Base Tunnel construction work status**

The 57 km long Gotthard Base Tunnel is excavated in five main sections. All five main sections are under construction. The excavation works in Erstfeld have just begun whereas in the Amsteg and Bodio sections the works have already been completed. In the Sedrun section, the excavation works are heading south. The excavation of the multifunctional station and the northern headings were completed in 2007.

A huge challenge is the TBM drive in the Faido section. This TBM drive started in 2007 and is facing very demanding ground conditions. In 2008 the installation of the first equipment like enclosures of cross-passages will take place. Preparations for the installation of the rail engineering will also begin. At the beginning of 2008 107 km of the 153 km long tunnel system of the Gotthard Base Tunnel were excavated. The official operational date is





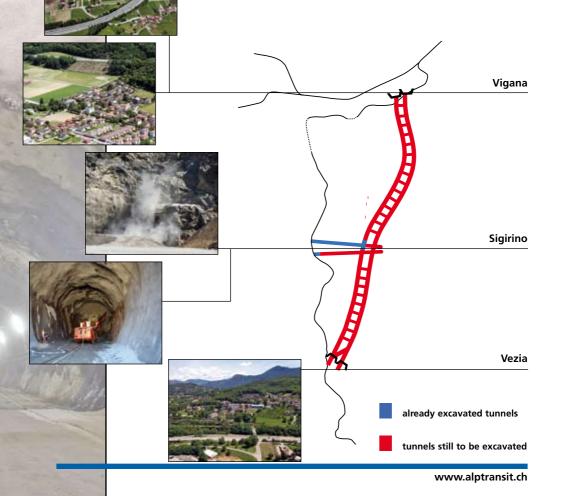
### **Ceneri Base Tunnel construction work status**

The 15.4 km long Ceneri Base Tunnel connects Vigana/Camorino in the north with Vezia in the south. The two single tubes are linked by cross-passages every 325 m. Not only at the northern portal but also in the area of the southern portal underground bifurcations are built. These serve the connection to Locarno in the north and in the south for a possible extension of the new line.

In February 2008 the excavation works for the intermediate adit in Sigirino will start. At the end of this gallery installation caverns are built, from which the excavation to

the north and to the south should begin in 2010. The invitation to tender for the main lot shall be carried out in the first half of the year 2008.

The date of operation of the Ceneri Base Tunnel is predicted in 2019.

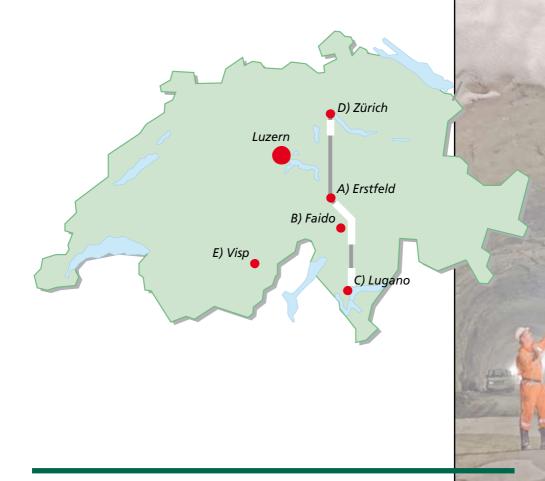


## **Swiss Tunnel excursions 2008**

The yearly Swiss Tunnel Congress in the Lucerne Culture and Convention Centre (KKL Luzern) is followed by excursions on the following day, arranged by the Swiss Tunnelling Society. The destinations of the excursions this year are two sites of the Gotthard-Axis and three further, very interesting sites in Switzerland.

The Congress participants can chose this year between these five excursions:

- A) Gotthard Base Tunnel, TBM advance Erstfeld
- B) Gotthard Base Tunnel, TBM advance Faido
- C) Vedeggio-Cassarate (Bypass Lugano)
- D) Western Bypass Zurich
- E) Visp Bypass





**Gotthard Base Tunnel, Erstfeld section** 

Visit of the installations and the tunnel boring machines at the beginning of the excavation works towards Amsteg.

08.00 Departure from Lucerne (by Bus)

09.00 Arrival on site

Site visit in groups

- Introduction of the project and visit

of the external installations

Visit of the TBM east (excavation)

- Visit of the TBM west (end of the assembly)

approx. 12.00 Lunch

13.30 Return to Lucerne approx. 14.30 Arrival at Lucerne

- · Protective clothing, boots and helmets are available
- The number of participants is restricted
- There is a restricted number of car parks at the site. Travelling by bus is recommended
- The programme might be adjusted due to activities on site



# **Tour B) Faido**

### **Gotthard Base Tunnel, Faido section**

Visit of the tunnel boring machines during advance towards Sedrun. The advance takes place at overburdens of up to 2'500 m under rock temperatures of up to 50°C. Visit of the installations in the multifunctional station and TBM advances.

07.30 Departure from Lucerne (by bus) 09.00 Arrival on site, site visit in groups

- Introduction of the project and visit to the external installations
- Drive through the 2'650 m long access tunnel with a 12.7%
   slope to the multifunctional station and to the TBM-advances
- Visit of the TBM advancing towards the North

approx. 13.30 Lunch in the cafeteria in Faido

14.45 Return to Lucerne approx. 16.15 Arrival in Lucerne

- Protective clothing, boots and helmets are available
- · The number of participants is restricted
- There is a restricted number of car parks at the site.
   Travelling by bus is recommended
- The programme might be adjusted due to activities on site





The tunnel is 2'630 m long and goes through the hills of Comano, Cureglia and Porza connecting the Vedeggio-Valley with the Cassarate-Valley in the vicinity of Cornaredo.

The tunnel crosses approx. 2'350 m of rock. However, at the other side of Cassarate the tunnel crosses approx. 200 m of soft ground with pressurized water (up to 20 m water column).

It is a first step into a good transport system in the surroundings of Lugano (PTL, Piano dei trasporti del Luganese).

07.15 Departure from Lucerne (by bus)

09.45 Arrival on site, introduction of the project

Project controlling and monitoring

Visit

13.00 Lunch (cafeteria)

14.15 Return to Lucerne (by bus)

approx. 16.45 Arrival in Lucerne

- Protective clothing, boots and helmets are available
- . The number of participants is restricted
- There is a restricted number of car parks at the site.
   Travelling by bus is recommended
- The programme might be adjusted due to activities on site



# Tour D) Western Bypass of Zurich and N4 Knonaueramt

The Western Bypass of Zurich and the N4 in the Knonaueramt are almost complete. The electro-mechanical installations are under construction. The tunnels Uetliberg, Islisberg and Aescher are open for visitors.

07.30	Departure from Lucerne (by bus)
08.30	Arrival at the information centre
	Coffee and croissants
09.00	Welcome and introduction of the project
	Paul Meili, Hans Meier
10.00	Visit (by bus) of the electromechanical installations
	in the tunnels Uetliberg, Aescher and Islisberg
12.30	Lunch in the restaurant "Grüner Engel", Birmensdorf
14.30	Return (by bus) to Lucerne
approx. 16.30	Arrival in Lucerne

- Protective clothing, boots and helmets are available
- The number of participants is restricted
- There is a restricted number of car parks at the site. Travelling by bus is recommended
- The programme might be adjusted due to activities on site





The full face excavation (500 m) in soft ground at the east portal Grosshüs of the tunnel Eyholz (approx. 4.3 km) is in progress.

08.00 Departure from Lucerne (by train)

By train through the re-opened Lötschberg-Base Tunnel

10.02 Arrival in Visp

Transport by bus to site

Welcome, coffee, introduction of the project

Site visit Lunch

approx. 13.00

approx. 14.30 Transport by bus to station
14.57 Departure from Visp (by train)

17.00 Arrival Lucerne

• Protective clothing, boots and helmets are available

. The number of participants is restricted

• The programme might be adjusted due to activities on site



# **Sponsors Swiss Tunnel Congress 2008**

We would like to thank all the sponsors!

### **Main sponsors**



Allianz Suisse Versicherungen, Zürich



Alpine Mayreder Bau GmbH, Salzburg/Wals Alpine Mayreder GmbH, Hergiswil



**Amberg Engineering AG** 

**Amberg Technologies AG** 

VersuchsStollen Hagerbach AG





# **Organisation**



## Closing date for registrations: Monday, 21 April 2008

Please use the enclosed registration form or register online at www.swisstunnel.ch.

Your registration is regarded as definite after your payment to the STS has been received:

CREDIT SUISSE Baden, Clearing No: 4050, Account No. 820321-21

Swift Code: CRESCH ZZ 54 A

IBAN: CH43 0405 0082 0321 2100 0

You will receive your congress documentation and a confirmation/invoice (receipt for VAT purposes) at the end of May.

### **Cancellation conditions**

- If you cancel your registration after the closing date for registrations and up to one week before the congress, 50% of the costs will be charged and the proceedings of the congress will be sent to you.
- If you cancel your registration within the final week, the entire costs of the
  congress will be charged and the proceedings of the congress will be sent to
  you. You may nominate another person to replace you.

# **Sponsors Swiss Tunnel Congress 2008**

**Main sponsors** 

Basler & Hofmann Basler & Hofmann AG, Zürich



**BASF Construction Chemicals Europe AG,** Zürich





Consorzio TAT, Los 554 Bodio/Los 452 Faido Implenia, Alpine, Impreglio, CSC, Hochtief



eine Marke der CREABETON MATERIAUX AG CREABETON MATERIAUX AG, Müntschemier



# **Organisation**



### **Costs of participation Swiss Tunnel Congress 2008**

### Presentations, excursions, proceedings

 STS members
 CHF
 430. EUR
 260. 

 Non-members
 CHF
 480. EUR
 290. 

 Students, Seniors
 CHF
 200. EUR
 120.

### Colloquium

 STS members
 CHF
 100. EUR
 60. 

 Non-members
 CHF
 120. EUR
 70. 

 Students, Seniors
 CHF
 50. EUR
 30.

### Dinner

Dinner CHF 90.- EUR 55.-

### **Excursion and proceedings**

One excursion CHF 200.- EUR 120.-

All prices inclusive 7.6% VAT

The proceedings will be sent to all participants of the congress in October 2008.

# **Sponsors Swiss Tunnel Congress 2008**

# **Main sponsors**



Frutiger AG, Thun



Gasser Felstechnik AG, Lungern



Herrenknecht AG, D-Schwanau





Implenia Bau AG, Aarau



# **Travel information**



- From Zurich Airport by train in 1 hour 30 minutes
- From Geneva Airport by train in 3 hours 30 minutes
- From Lucerne Rail Station, it takes 2 minutes to reach the Lucerne Culture and Convention Centre (KKL Luzern) on foot

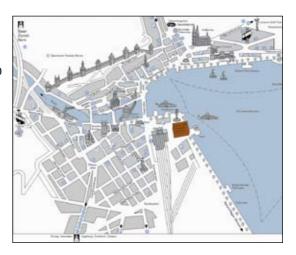


### By car

Parking spaces are available in the Car Park P2 at the Lucerne Culture and Convention Centre (KKL Luzern).

## **Lucerne Culture and Convention Centre (KKL Luzern)**

Europaplatz 1
Postfach 3570
6002 Lucerne
Tel. +41 (0)41 226 70 70
Fax +41 (0)41 226 70 71
www.kkl-luzern.ch



# **Sponsors Swiss Tunnel Congress 2008**

# **Main sponsors**









Marti Holding AG, Bern



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## **Hotel reservations**



Please reserve your hotel room online at www.swisstunnel.ch or use the enclosed form to reserve directly through:

Luzern Incoming GmbH
Frau Maria Santin
Arsenalstrasse 40
6010 Kriens
Tel. +41 (0)41 318 41 45
Fax +41(0)41 318 41 46
E-Mail maria.santin@luzern-incoming.ch
Internet www.luzern-incoming.ch

Reservations must be received by 10. March 2008 at the latest; the hotel reservation quotas are only valid until 10. March 2008.

Participants are responsible for reserving their rooms.

The room prices are not included in the congress fees.

### **Trains to Lucerne**

	Departs	Arrival Lucerne
Aarau	8.14	9.14
Basel	8.04	9.14
Bellinzona	6.23	8.37
Bern	8.00	9.00
Brig	6.49	9.00
Chur	7.13	9.25
Genf	6.14	9.14
Lausanne	6.45	9.14
Locarno	5.53	8.37
Sion	6.24	9.00
St. Gallen	7.02	9.19
Zürich HB	8.04	8.50
ZRH Airport	8.13	9.25

# **Sponsors Swiss Tunnel Congress 2008**

## **Main sponsors**



**RUWA Drahtschweisswerk AG, Sumiswald** 





Tunnel & Mining, Zürich



**ARGE TRANSCO, Sedrun** 





# **Evening Event on 11 June 2008**



After the presentations, the STS invite you to an aperitif on the forecourt of the Culture and Convention Centre Luzern.



We shall then be treated to some culinary delights at the top-class Hotel Schweizerhof \*\*\*\*\*.

Banqueting Hall opens 19.45 Dinner starts 20.00





Dinner is not included in the price of the congress and will be billed separately.

Cost per person: CHF 90,-/EUR 55,- (including 7.6% VAT), drinks included.

# **Sponsors Swiss Tunnel Congress 2008**

### **Main sponsors**





Walo Bertschinger AG, Zürich

### Co-sponsors

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FGU Fachgruppe für Untertagbau
GTS Groupe spécialisé pour les travaux souterrains
GLS Gruppo specializzato per lavori in sotterraneo
STS Swiss Tunneling Society

FGU-Sekretariat Thomi Bräm Felsenstrasse 11 5400 Baden

Tel. +41(0)56 200 23 33 Fax +41(0)56 200 23 34

e-mail fgu@thomibraem.ch

<b>Beitrittsgesuch</b>	FGU/Demande	d'adhésion	au	GTS
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Einzelmitglied (Fr. 50.– inkl. MWST/Jahr) Membre individuel	Kollektivmitglied (Fr. 450.– exkl. MWST/Jahr) Membre collectif
Student / Pensioniert (Fr. 20.– inkl. MWST/Jahr)	
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# **Notes**

# **Notes**

# **STS Congress Secretariat**

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E-Mail maria.santin@luzern-incoming.ch

Internet www.luzern-incoming.ch

Online Hotel reservation at www.swisstunnel.ch



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