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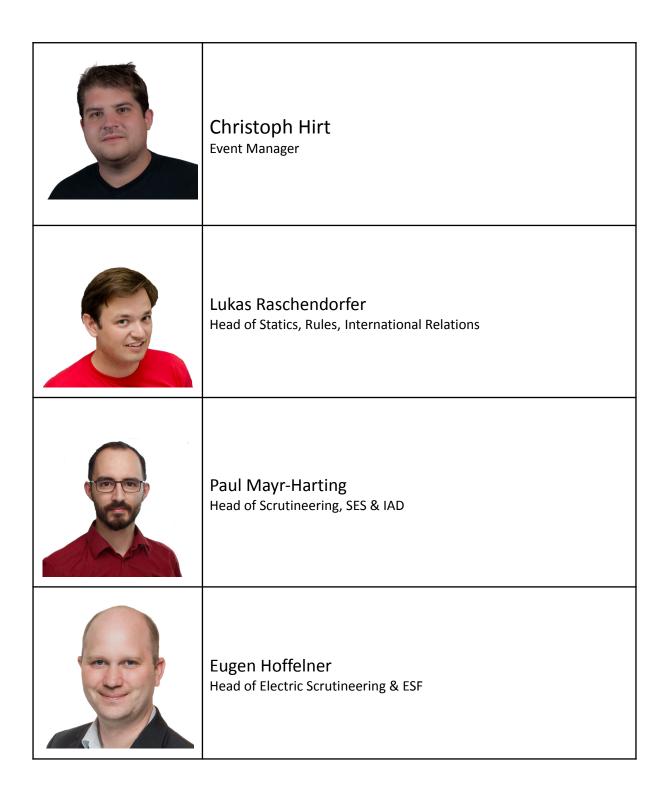
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# FSA 2022 Officials





Manuel Seeböck Head of Dynamics, Timekeeping
Alexander Rauch Head of Dynamics
Anika Kloker
Caro Reichelt
Alexander Kinzer



Romana Mocnik Head of Media
Thomas Gerstorfer Head Design Judge, Scoring
Franz Rabel Head Business Judge
Sebastian Frager Head of Cost



# **Participating Teams**

You will find the up-to-date list of participating teams on <u>https://fsaustria.at/fsa-2022/registered-teams/</u>.

Pit assignment will be published at <u>https://fsaustria.at/</u> a few days before the event.

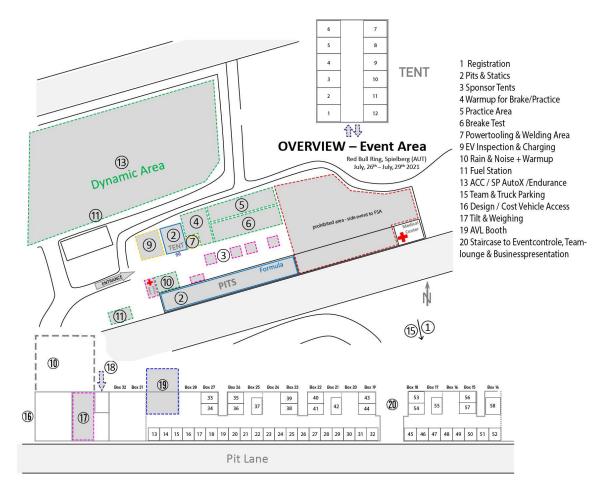
Car#	Country	Team
E1	GERMANY	Deefholt Dynamics e.V.
E4	GERMANY	Schanzer Racing Electric e.V.
E7	AUSTRIA	Campus Tirol Motorsport
E11	GREECE	Aristotle University Racing Team Electric
E14	HUNGARY	BME Formula Racing Team (FSE)
E15	BELGIUM	UGent Racing
18	SPAIN	ARUSc
20	GERMANY	FaSTDa Racing
21	GERMANY	THM Motorsport
E21	GERMANY	Elefant Racing e.V.
22	UNITED KINGDOM	Team Bath Racing
E22	AUSTRIA	Joanneum Racing Graz
E24	ESTONIA	FS Team Tallinn Electric
E26	GERMANY	GreenTeam Uni Stuttgart
27	ITALY	Polimarche Racing Team
29	GERMANY	Rennteam Uni Stuttgart
E31	GERMANY	TUfast Racing Team e-Technology
E33	SWITZERLAND	AMZ Racing Team
33	CZECH REPUBLIC	CTU CarTech
34	SPAIN	MAD Formula Team
E34	SWEDEN	Chalmers Formula Student
E35	GERMANY	Team wob-racing.
37	ITALY	MoRe Modena Racing
E41	AUSTRIA	TU Wien Racing
42	india	Vishwaracers
E43	GERMANY	Bodensee Racing Team
E48	GERMANY	RUB Motorsport
50	GERMANY	Seagulls Luebeck
E50	PORTUGAL	FST Lisboa
51	ITALY	Unical Reparto Corse
E53	AUSTRIA	TU Graz Racing Team
57	FRANCE	Metz Racing Team
E59	GERMANY	Elbflorace
E63	GREECE	UoP Racing



E67	GERMANY	IRT electric
E69	GERMANY	StarkStrom Augsburg
E70	SLOVENIA	Superior Engineering FS Ljubljana
70	GERMANY	CAT-Racing
E71	GERMANY	CURE
71	GERMANY	Aixtreme Racing
75	UNITED KINGDOM	Full Blue Racing
E77	GERMANY	DHBW Engineering Stuttgart e.V.
E78	GERMANY	e-gnition Hamburg
78	FINLAND	Tampere Formula Student
79	HUNGARY	Arrabona Racing Team
84	GERMANY	Campus Motorsport Hannover
E85	NETHERLANDS	Formula Student Team Delft
E86	india	Orion Racing India
88	POLAND	Cerber MotorSport
89	FINLAND	Formula Student Oulu
E90	SLOVAKIA	STUBA Green Team
94	GERMANY	Rennstall Esslingen
95	SPAIN	FSUPV Team
96	SPAIN	U Motorsport
E98	GERMANY	Speeding Scientists Siegen e.V.
E99	GERMANY	Ecurie Aix Formula Student Team RWTH Aachen e.V.
99	GERMANY	High Speed Karlsruhe



## Site Plan & Pit Plan



# Event Schedule, Judging Schedule & Scrutineering Schedule

You will find the schedules @ https://fsaustria.at/fsa-2022/rules/

# **Slack Space**

There will be a slack space for announcements, Q/A, emergency support, etc. at <a href="https://fsaustria2022.slack.com">https://fsaustria2022.slack.com</a>. This space will be available from 2022-07-22, the join link will be posted when the space is available.



# **General Procedures**

## **On-site Registration Process**

After arriving at FSA, the event registration has to be done by the team captain at the registration booth at the event tent on the campsite. See the event schedule for the opening time of the registration booth.

Camping wristbands will be handed out at the registration booth as well.

Only afterward will you be allowed to enter the paddock area and the campsite. However, the campsite can be set up without the camping wristband until Saturday, 20:00.

Any COVID-19-related additional regulations will be published separately at <u>https://fsaustria.at/fsa-2022/rules</u>.

To avoid a rush and waiting times on Sunday, you can also register on Saturday from 13:00-20:00 at the event tent on the campsite.

The registration has to be done by the team captain. **Please do not bring more than two or three team members to the registration.** 

### **Check-list for On-site Registration**

To streamline the registration process and ensure short waiting times for everyone, please only come to the registration booth if you have all the following items ready:

- Cash for **additional team members** and the **campsite fee**, please have the exact amount ready if possible; large banknotes are appreciated (€200)
- The knowledge of who your Safety Responsible (E-Cars only) / Team Captain is
- The signed liability waiver

If you do not have these entire things ready, you will have to re-queue (no shortcuts). So please be prepared!

At the end of the registration process, you will get the following things, among others. You will also be asked to sign for them, so please check if you got all of them.

- Vehicle pass for a campsite (1 pcs)
- Campsite wristbands (please count them!)
- Team member badges + covers + lanyards
- Invoice
- Scrutineering Sheet
- Event T-shirts
- 4 Dynamic "pass" safety vests
- 2 Press vests
- Garbage bags
- Poster & FSA magazine



- FSA timetable helper guide folded A6
- goodies from FSA Partners

## Parking at Red Bull Ring

No parking for any vehicle is available at the event site. Please use the gravel car park at the entrance road of Red Bull Ring for parking. This parking space is free of charge and can be used for any number of vehicles.



# Entering the Event Site / Set-up Say

On Monday you will be able to enter the event site with your truck and unload your race car and your equipment. Each team gets assigned a time slot, based on the results of this year's event registration quiz, during which you will be able to enter the event site. At the end of your time slot, your truck and any other vehicles have to leave the event site.

The official entrance list will be published on <a href="https://fsaustria.at/fsa-2022/rules-2/">https://fsaustria.at/fsa-2022/rules-2/</a>

Please queue up at the gravel parking lot and do not proceed to the event site until an FSA official gives you the OK.

If two teams arrive with / share the same vehicle (e.g. universities attending with both combustion and electric teams), both teams will be allowed to enter the event site during the earlier slot.

If you miss your time slot or cannot finish unloading in time, get in touch with an FSA official.



## Leaving the Event Site / Closing Day

After the endurance event, cars are locked up in parc fermé. As soon as your car is cleared to leave parc fermé, you have **two hours** to pack up your equipment and leave the pit. Your team truck may enter the event site as soon as your car is released from parc fermé.

As soon as your pit is clear, please inform the event control @ the helpdesk, as an FSA official will need to check your pit.

In any case, all pits must be cleared and clean by 18:30.

We will try to start the award ceremony at the campsite as punctually as possible – so please start packing up as early as possible to help us in this endeavour.

## **Emergencies**

In case of injuries, please go to the ambulance stationed at the event site. The location of the ambulance is marked on the site plan.

On Wednesday and Thursday, the ambulance is situated in the dynamic area. For off-site accidents, call the European emergency number **112**.

For COV-19-related issues, follow the instructions in the FSA COV-19 document

## **Weather Conditions**

Red Bull Ring in midsummer can bring any weather conditions. By experience, we recommend the following actions:

### Sunshine

!!! Don`t forget to drink a lot of water !!!

Please equip yourselves with sufficient sun protection (sun cream, sunglasses, sun hat).

Unfortunately, wasps also enjoy the sunny weather. Fly swats to prevent and cooling gels to cure wasp stings are recommended.

### Wind and Rain

Wind and rain tend to be very intense in this region. Remember to secure tents at the campsite accordingly. Personal rain equipment (jackets, umbrellas, etc.) is strongly recommended.

## **Team Pits**

The Team pits are split up into those in the Red Bull Ring Building and those in the extra tents.

After you enter the paddock area with your team vehicle, please follow the instructions of the Pit Marshals about vehicle parking.

You can identify your pit either by the plan in this document or the sign with your team name above it. The doors to the pit lane must always remain closed, only the doors towards the paddock shall be open – breaking this rule will lead to immediate penalties up to disqualification.

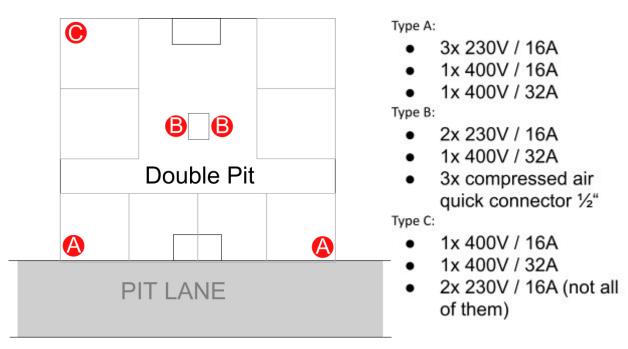


Usage of tools that are noisy or represent a fire hazard (angle grinder, welder, ...) is prohibited. Please work outside the pits at the powertool area. Repeat offenders will be penalised.

### **Power Outlets Team pits**

### Inside Red Bull Ring

In the pits, there are numerous power outlets of different types. The plan below will give you a rough idea of the type and position of the outlets, so that you can bring matching adapters.



### Inside the Tents

There will be provided several power outlets with 230V / 16A in the pits.

### Bikes, Scooters, etc.

We understand the need for quick personal transport on and around the event site – therefore bikes, scooters, etc. are allowed.

However, there are some rules so that we can continue to make this concession:

- Drive responsibly, do not endanger or scare any people
- If your vehicle is very noisy (IC engine), do not operate it during the "no engine running" times.

## **Services**

### Tire Changing

The tire changing area is located in the scrutineering area near the tilt test. Please ask an Official at the scrutineering area for access. You will have to operate the tire changing machine on your own, FSA will provide no help.



## **Event Control**

The Event control is restricted to FSA officials, any requests to the officials shall be done via the "Help Desk"



# **Dynamic Passes/ Safety Vests**

The safety vest is your dynamic pass. You will NOT need to return them at the end of the event.

The dynamic passes are needed to enter

- all dynamic areas
- the scrutineering area
- the charging tents (electric teams)

### **Media Passes**

Two media passes will be handed to you during registration. You will NOT need to return them at the end of the event.

### **Results & Announcements**

Results and Announcements will be posted on the slack space <u>https://fsaustria2022.slack.com</u>.

After the event, all results will be published at <a href="https://fsaustria.at/fsa-2022/results/">https://fsaustria.at/fsa-2022/results/</a>

## **Incline to the Dynamic Area**

The incline to the dynamic area is quite steep – so make sure that you have a driver properly seated in the car so that he is able to break.

Like on the rest of the site, it is only allowed to move the car at a walking pace.

## Smoking

Smoking is only allowed next to the provided ashtrays on the site.



# **Team Captain's Meeting**

As in previous years, we will again host a meeting between the event officials and team representatives to gather feedback and discuss the event and Formula Student in general. Please check the event schedule for time and place.

To increase the quality of the discussion, please make up your mind (e.g. discussing it with your team's expert) about the following topics:

- What do you like/dislike about this event how can it be improved?
- Rules Related topics
- Documents: They take a lot of time to make, write and to review; do you feel something needs to change here?
- Did you have any trouble with diverging rulings between the events? A allows it, B does not?
- Anything else you want to bring to our attention.Scrutineering

# Hoki's Guide for Scrutineering

As always, this year's edition of Formula Student Austria will start with scrutineering. To make the whole process as efficient as possible and get all cars inspected as soon as possible, here is some advice about the process. All teams are asked to be prepared and present on time for their slots in order to make sure there is no delay. **If you miss your slot, you will be set back to the end of the scrutineering order!** 

### Preparation

You can download a sample of the scrutineering sheet on our homepage. Please try to prepare yourselves as well as possible with that in hand, maybe even do a test-scrutineering before the event with older or former team members. Your actual inspection sheet will be handed to you at registration, you must have it ready for all stages of scrutineering!

## Scrutineering on Sunday at Campsite

Scrutineering will start on Sunday at 10 am at the event tent on the campsite. As can be seen on the schedule, we have planned almost all of the accumulator scrutineering and some of the mechanical scrutineering for combustion cars on Sunday. After inspection, the accumulators will be sealed, it is not allowed to work on the accumulators on the campsite! So please be well prepared, you can only work on your accumulators in the scrutineering tent in the paddock area where we can make sure that the necessary safety precautions are taken.

Additionally, all teams that are already present for scrutineering on Sunday at the campsite, will also get their slot pre-inspection and driver egress test. Do not worry if some of your drivers might not be present yet, it will be possible to do driver egress tests until Wednesday.



#### **Scrutineering from Monday onwards**

From Monday onwards, scrutineering will be at the paddock area. Battery and electrical scrutineering will take place at the scrutineering / charging tent. Pre-Inspection and mechanical scrutineering will take place in your pit, i.e. a scrutineering team will be at your team pit during your pre-inspection and mechanical scrutineering slot. Please make sure to prepare your pit in advance so that we have enough space for the inspections.

### **Pre-Inspection and Mechanical Scrutineering**

For the Pre-inspection and mechanical scrutineering in your pits, you have to prepare all driver's equipment you want to use, all drivers with their driving licences, all tires and rims, your push bar and quick jack device including the fire extinguishers, and some tools to be able to remove covers, wheels, etc. quickly if scrutineers ask you to do so. You will also have to present your IAD and SES test specimens and have these documents and all the surrounding communication ready (digital is fine, no need to print everything). In case you need to fix something quickly, also have some various materials ready like lock wire, tape, or zip-ties.

The Pre-Inspection includes the check of your driver equipment and the egress tests (all drivers have to do the egress test before they are allowed to drive). After the egress test and a check of their driving licence, the driver will be issued a "driver" wristband.

#### **Limitations during Scrutineering**

There are only four team members allowed in the scrutineering pits at the same time! This will be applied to your actual pit as well if scrutineering is taking place there. It is, of course, possible to change team members during scrutineering. It is not allowed to disrupt the scrutineering process by filming, photographing or being engaged in any other activities that are not directly related to the scrutineering process.

#### **Re-Scrutineering**

If you don't pass the scrutineering on the first try, you have to fix the issues which were pointed out by your scrutineers.Only small issues can be fixed quickly during the Scrutineering. As soon as you think everything is OK, come to the scrutineering tent and inform the scrutineer that did your prior inspection. The re-inspection will always be done by the scrutineer who inspected the car before, or by the chief scrutineer if he/she should not be available.

Last but not least: Scrutineers don't like discussions! Be aware that you might just make things worse by not accepting that you need to change something ;-)

## Weighing, Tilt & Noise

To make sure that the car is in the ready-to-run configuration (fuelled up!) for the official weighing at the tilt table, you will be required to do the noise test (C-car only) immediately after the tilt test. Also, you need to mount the tire & rim combination that you intend to run in dry conditions. If you are not able to do the noise test (no fuel, missing parts, etc.), you will be required to re-do tilt & weighing before the next attempt.

### **Brake Test**

The max number of attempts per run is 3. After that, you will have to re-queue for the brake test.



# **Static Events**

## **Cost and Design**

The Schedule for Cost and Design has been made so that

- Design & Cost are back-to-back (with very few exceptions) so you have more continuous time to tackle scrutineering
- You do not have to leave the judging Bay between Cost and Design
- Teams from the same university are in the same time slot to avoid "leaking" expertise
- You have a 1-hour time slot before and after your Design/Cost event to use the forklift to bring your car up/down from the Design/Cost area. Please queue up early so that you don't get in any trouble at the forklift.

To be more consistent and efficient, the judging will be started/stopped by an external audio signal (horn), so be sure to be there on time.

## **Business Presentation**

The Business presentation rooms are all near the event control. Please also make sure to bring a device capable of VGA and HDMI and consider a spare laptop, just to be on the safe side. On Tuesday morning and noon, the Business presentation rooms will be open for equipment testing for the morning and afternoon sessions, respectively.



# **Dynamic Events**

# **Driver Briefing**

There will be no on-site driver briefings. Instead, a video with all instructions will be provided at <u>https://fsaustria.at/fsa-2022/rules/</u>. Also, any dynamic event-related information (Running order, Course layout, etc) will be published at <u>https://fsaustria2022.slack.com</u>

## **Engine Testing**

If you need to run your engine, you can do that next to the practice area. The driven wheels must be jacked up, and the driver must wear full safety gear.

## **Event Closing**

The Events will terminate at the time indicated in the schedule, unless announced otherwise.

No cars may run after the official end of the event, so please be sure to queue on time!

# **Brake Lights**

Please note that a non-functioning brake light (never/always on) is considered a safety issue and that a car with problems may be black-flagged during the endurance.

## Working on the Cars Inside the Dynamic Area

Working on the car is not allowed in the lanes leading up to the starting line of any dynamic event. If you need to adjust your wings/pedals etc. between the runs, you must leave the lane and go back to the staging area (the area where you can warm up your engine, etc.)

# **Tire Protection**

Inside the dynamic area, no tire protection is allowed. It must be taken off at the entrance to the warm-up area and may only be re-applied when leaving the dynamic area.

## **No Help Zone**

Using external batteries to start the car is acceptable inside the dynamic Area but is prohibited as soon as the car has crossed the "no help zone" line. If you encounter problems preventing you from running after crossing the line, the run counts as a DNF. The position of the no-help zone will be announced in the driver briefings and is visually indicated.

## **Timing Transponders**

Please remove all UHF-Band transponders (especially those from FSG) from your car before the event.



# **Team Welcome / Award Ceremonies**

Team Welcome and both the award ceremonies will be held at the event tent at the campsite.

The date and time for the team welcome and the award ceremonies will be published in the event schedule.

There is no Wi-Fi at the campsite, please use your own data connection. (check <u>The Area Around the</u> <u>Red Bull Ring</u> for further information) Mobile Internet in Austria is cheap, and you will get a prepaid card at e.g. Hofer or Lidl.



# Campsite

Please follow the camping rules stated also in this document. Misbehaviour and problems with the neighbours and law enforcement could have serious implications for FSA's future. Disregarding the camping rules will therefore be counted as "unsportsmanlike behaviour" and penalised accordingly.

# **Campsite Regulations**

- 1. The night hours are from 10 pm to 6 am. During this time, all activities which are likely to disturb night sleep are strictly prohibited.
- 2. The campsite may be entered only after registration and payment, except on Sunday until 1 pm.

You are required to wear the provided bracelets during the whole stay on the campground.

- 3. It's not allowed to dig holes or channels into the ground.
- 4. Open fires, such as bonfires and pyrotechnics, are not allowed.
- 5. Damage to the campsite grounds, caused e.g. by tents, caravans, trailers or group activities, will result in monetary fines.
- 6. Keep the campsite clean. Please collect the waste in trash bags.
- 7. Please keep the sanitary installations clean.
- 8. Defined areas such as streets must not be used for camping. Teams may set up their tents and equipment in the designated areas; defined/marked areas such as streets must remain clear at all times.
- 9. The campsite closes on Friday, at 12 pm (noon).
- 10. Traffic rules (Straßenverkehrsordnung, StVO) apply to the whole campsite. The speed limit is 10 km/h.
- 11. Parking next to the campsite is only permitted for vehicles with a maximum permissible weight of 7.5 metric tons. (including trailers and semi-trailers)
- 12. To support your logistics, a maximum of one vehicle may enter or leave the campsite repeatedly during the event. Only cars with the special sticker handed out at on-site registration can pass the campsite entrance. The stickers are self-destructive labels and can only be applied to a vehicle once; interchanging these taxi vehicles is not permitted.
- 13. Caravans, trailers, and other vehicles which will remain on the campsite may enter the area on setup day and must not be moved throughout the course of the event.
- 14. In any case, vehicles with a permissible maximum weight, including any trailer or semi-trailer, exceeding 7.5 tonnes are strictly forbidden to enter the campsite at any time. These vehicles must be parked at the designated spot at Red Bull Ring (see diagram above).
- 15. Parking on country roads (especially L544 next to the campsite) is strictly prohibited.
- 16. Drones or other flying equipment are strictly prohibited both on the campsite as well as on the event grounds.
- 17. FSA may expel you from the campsite or charge your team with penalty points and/or monetary fines after significant or repeated violations of the camping regulations. In that case, you are not entitled to any refunds.



## **Campsite Plan**



## The Area Around the Red Bull Ring

If you visit Austria or even Europe for the first time, the following hints and tips might be interesting for you. (information is spiced up with fun facts)

### 1. Austria is Called the "Heart of Europe"

It's not an island, it's really located in the centre of Europe; the -al- (i.e. AustrALia) makes the difference.

### 2. The Official Language in Austria is German

In some regions (including also Spielberg where the competition takes place), it may sound a little different. That's called 'Mundart', 'Dialekt' or 'Steirisch' or simply 'higher level German'. The official language at FSA is English, which most people at stores and everybody at Red Bull Ring speak.

### 3. We Use the Metric System and only the Metric System

Hint for visitors from Germany:

- 100 g = 10 dag
- Sahne = Schlagobers
- Apfelschorle = Apfelsaft g'spritzt
- Tüte = Sackerl
- Brötchen = Semmel oder Weckerl
- Weinschorle = Spritzer
- Wiener Würstchen = Frankfurter



### 5. We Use 230V AC with Type C and Type F Power Plugs. Make Sure to Bring Adapters

Type C: <u>https://en.wikipedia.org/wiki/Europlug</u> Type F: <u>https://en.wikipedia.org/wiki/Schuko</u>

### 6. Water in Austria is one of the Best in the World

You can drink water directly from the pipe unless it's explicitly prohibited ("Kein Trinkwasser").

### 7. Credit Card vs. Cash

Paying cash is best practice in Austria. Euro is the currency to use, USD or any other currency will not be accepted.

Credit and debit cards will work at all major retail stores as well, but might not be an available payment method in smaller establishments.

## 8. Emergency Calls (free of charge)

- European emergency call: 112
- Fire brigade: 122
- Police: 133
- Ambulance: 144

### 9. Internet Access / Mobile Phone

Apart from the cheap roaming options inside the EU (as of June 2017), there are free Wi-Fi hotspots available at FSA. However, you might consider getting yourself a mobile internet SIM card, to use at the campsite or such. We recommend getting a HoT package, available at Hofer (https://www.hot.at/tarife).



#### **10. Shops / Points of Interest**

#### **ATMs**

are called '*Bankomat*' and can be found **near** Red Bull Ring **and at the Red Bull Ring**. Watch out for the blue-green sign.



Steiermärkische Bank und Sparkasse SB-Zone Red-Bull-Ring-Straße 1 8724 Spielberg bei Knittelfeld Distance - directly at the Red Bull Ring

Steiermärkische Bank und Sparkasse Marktpassage 1 8724 Spielberg bei Knittelfeld Distance 3,4 km

Raiffeisenbank Knittelfeld 8724 Spielberg bei Knittelfeld Distance 3,3 km *Car Spare Parts & Fluids* 

Forstinger Ingeringweg 2 8720 Knittelfeld Distance 4,0 km *Hardware Store* 

OBI Bau- u Heimwerkermärkte Arena am Waldfeld 31 8753 Fohnsdorf Distance 7,8 km Office Stationery (Paper etc)

> Pagro Diskont Wienerstrasse 23 8720 Knittelfeld Distance 6km

#### **Pharmacy**

Marktpassage 6 8724 Spielberg Mo - Fr 8:00 - 12:30, 14:30 - 18:00 Sa 08:00 - 12:00

#### **Gas Station**

Shell Hauptstraße 2 8740 Zeltweg