The following notes/information relate solely to the teaching and learning environment (TLE; hereinafter also referred to as the Product) “Enterprise Management with Global Bike in SAP S/4HANA 2020 - exclusive”, TLE Release 4.1. They describe specific services provided by SAP UCC in a product-specific manner.

If an educational institution (hereinafter referred to as “Client”) decides to use the product described below, these PSD shall become an integral part of the contract upon conclusion of the TLE Usage Contract.

In the event that provisions of these PSD contradict the provisions of the Framework Agreement concluded between the SAP University Competence Center of Otto von Guericke University Magdeburg (“SAP UCC”) and Client, the respective PSD provisions shall take precedence over the provisions of the Framework Agreement concerned. The definitions set out in the Framework Agreement shall apply. They may be viewed on the SAP UCC website (https://portal.ucc.ovgu.de) under “My UCC/ACC” under “My Framework Agreement”.

1. Product description

The product is typically suitable for performing standard ERP processes, client-dependent customizing exercises, SAP Fiori configuration as well as for the fields of ABAP programming, client-dependent customizing and SAP Fiori development. An overview of supported instructional materials can be found under clause 9 Data referenced in the instructional materials, such as material master data, is available 1,000 times each within a client and is thus available for the SAP users predefined to have the corresponding number for students. The largely modular instructional materials may be used directly after SAP users have been activated.

The TLE runs on an SAP S/4HANA system with 5 clients, which are exclusive to the Client. The TLE includes the Global Bike model enterprise and associated organisational, master, and transactional data, as well as preconfigured user accounts. The underlying in-memory database SAP HANA is set to 200 GB main memory. A total of 12 GB of main memory is available for the SAP application server.

Fee-based expansions (see clause 12.) may be purchased or add-on services (e.g.: upgrades to the SAP Product, object transport, etc.) may be requested individually in addition to the services included in the price via the SAP UCC ticket system (https://servicedesk.ucc.ovgu.de). Further information on additional fee-based services and the applicable requirements for specific add-on services may be found at https://portal.ucc.ovgu.de/further-information-s4hana-exclusive.

2. Product limitations

The product may be used for the use of ERP core functionalities (see the contents listed in clause 9). Advanced features, such as Advanced ATP, MRP Live, PP-DS or the use of liveCache, may severely
degrade users’ user experience, as they result in a system load for which it was not configured. We expressly advise against the activation and use of expanded functions without an extension of hardware resources (see also clause 12.).

Changes to cross-client objects must be permitted for each client in order to engage in development and customizing. The ABAP development environment in S/4HANA is structured in such a way that developer and object keys are not queried when objects are created, changed or deleted. The ABAP development environment may only be used to the full extent upon the release of changes to the repository in the client settings and the corresponding user authorizations. SAP original objects can be modified without restrictions since SAP SE eliminated object keys. This may lead to usage impairment within the complete S/4HANA system under certain circumstances. There is no body monitoring changes to SAP objects.

The teaching materials (see clause 9.) for this product are only supported by the SAP UCC to a limited extent, see clause 10.b., since developments may affect TLE functionally.

Independent creation of RFC connections is only allowed with the written consent of SAP UCC, as this has a direct impact on the functionality of the SAP Fiori Launchpad and the Fiori tiles within it.

The TLE may only be used for the purposes of scientific research and education; its use for the administration of an existing enterprise or educational institution is prohibited, as is its use in connection with armament technologies, weapons, missiles capable of delivering weapons, and/or the like (see the Framework Agreement).

3. Usage notes
Predefined users for lecturers and students are available for use of S/4HANA clients as specified in the following table:

<table>
<thead>
<tr>
<th>User</th>
<th>Initial password</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>TEACH-### (000-020) tlestart</td>
</tr>
<tr>
<td>Students</td>
<td>LEARN-### (000-999) tlestart</td>
</tr>
</tbody>
</table>

Users must be unlocked via transaction ZSUR or SU10 prior to first use.

LEARN users for students have authorisation to run case studies via the SAP Fiori interfaces. Only LEARN users are intended to use the official instructional materials. TEACH users are intended for lecturers and have access to special transactions designed to assist lecturers in using the TLE.

User-specific preparations have to be made for some business processes, e.g. integrating users into the organisational and personnel structure of the Global Bike model enterprise. For LEARN users, this has already been done for the business processes used in the official instructional materials. SAP UCC provides information on its website in the respective instructor notes should additional steps prove to be necessary.

User “MASTER” with the initial password “tleadmin” is intended to be used exclusively for administrative tasks, such as creating named users for other administrators or lecturers.
In order to carry out development activities, a release is required by SAP UCC in order to perform modifications to the central object repository for one or more clients within the S/4HANA system. The need for such a release must be communicated to SAP UCC via the ticket system (https://servicedesk.ucc.ovgu.de).

Own users with appropriate user authorisations are required because the preconfigured users within the client cannot perform development activities. User IDs can be created using the format DEV<Client>-###, where ### stands for a consecutive number (e.g. DEV200-000). Unique user IDs are assigned in cases in which development activities are performed in multiple clients given that developers work across systems. The client number integrated in the user ID precludes mutual interference during development on system-wide objects. SAP_ALL can be used as an authorization profile for these user IDs.

Users created by the Client do not have access to the SAP Fiori interface. Additional roles that may be tied to the LEARN-### user IDs must be used for such purposes.

Creating a development package for each user with development rights or for each project in which the corresponding developments and changes are made is advisable. Objects created in the SAP standard $TMP package are local objects and cannot be transported to other systems.

4. TLE life cycle and SAP product availability

SAP UCC reserves the right to issue a new TLE release every one to two years as a rule. With regard to the SAP UCC curricula and the technical basis, a TLE release will be supported and operated until the release of the next but one version.

The latest release is always used whenever a new release of the TLE is supplied.

If the Client uses a TLE version that has reached the end of its lifecycle, it is automatically switched off by SAP UCC and a current TLE will be supplied. SAP UCC will provide sufficient advance notice of the end of the lifecycle and the associated change to the current product version; notice will be provided no later than six months in advance.

The Client will receive a new exclusive system when switching to a new TLE release. Changes to customizing, developments, data and users from the prior system will not be transferred to the new system.

Transferring objects from the previously used system to the new system via transport request is not included in the scope of services, however this may be requested as an additional service via the SAP UCC ticket system. Additional comments and the applicable requirements may be read at https://portal.ucc.ovgu.de/further-information-s4hana-exclusive.

Given that the TLE is based on an SAP product, SAP UCC is tied to product lifecycles for relevant SAP solutions as well as license provisioning within the SAP University Alliances program when operating as well as deploying the SAP UCC TLE. SAP UCC may no longer provide the SAP Systems, and accordingly TLE, if SAP SE withdraws the license granted to Client in the SAP Software Transfer Agreement for On-Premise Products.
5. Backup and Recovery Services

The HANA database on which TLE is supported is backed up once a week. These backups are retained for four weeks. The database log files are backed up at the time they are written from the database and are also stored for four weeks (backup cycle). The SAP application server file systems, the HANA database, and the operating system are backed up and retained based on the same backup cycle as the database.

All backups are done online, i.e. without interrupting availability. Backups are made to SAP UCC's backup system, which is physically separated from the SAP UCC data centre's computer infrastructure.

SAP UCC will perform a restore and recovery of the entire system in the event of a technical malfunction or user error causing irreversible damage to the SAP S/4HANA system. Restoring individual clients is not possible. Restoration of the system will take a maximum of 3 working days (Monday to Friday; see definition in the Framework Agreement) during which the system cannot be accessed. Restoring the system is only possible during the usual SAP UCC backup cycle.

If necessary, the Client must manually clear developments and own, client-independent customizing that are no longer required. Resetting an S/4HANA client only affects client-specific customizing and user data.

Note: Restore and recovery of the entire system usually results in data loss in all clients running on the system.

6. System availability

As used herein, availability means that a user can successfully log on to SAP S/4HANA system.

As a rule, the SAP S/4HANA system for the TLE is intended to be operational 24 hours per day, 365 days per year. Availability of 98% over the contract year is guaranteed. Guaranteed availability does not include periods during which use is interrupted or impaired due to necessary maintenance work or on grounds for which SAP UCC is not responsible.

NOTE: Interruptions in availability resulting from faulty user activities, e.g. when the complete system has to be reset to the pre-modification state, are not included in the guaranteed availability.

Use of the TLE should be avoided during maintenance windows (Tuesdays between 06:00 and 10:00, CET or CEST; see Framework Agreement) as SAP UCC may use maintenance windows in some cases without notice or on very short notice.

Additional details on availability and maintenance can be found in the Framework Agreement.

7. Access requirements

All points of access to the respective TLE are secured by a prior specification of the static, routable IP addresses of the Client. Client can only use SAP applications via the IP addresses stored with SAP UCC if there is an IP address restriction. Client may notify SAP UCC of any changes at any time via the SAP UCC service desk or via the self-service options on the SAP UCC website.
Should Client wish to use the TLE from previously unspecified or dynamic IP addresses (e.g. in the case of mobile work from home), these can be enabled at any time using the self-service options on the SAP UCC website. This activation ends automatically after 24 hours and must be repeated again as needed.

A web browser is required to use SAP Fiori. The web browsers supported by SAP SE can be queried depending on the version of the SAP product at https://service.sap.com/pam. Use of a modern, up-to-date browser such as Chrome, Firefox or Edge is advisable.

The system may also be accessed by means of the SAP GUI. SAP UCC provides the latest version of the SAP GUI via download on its website; this a voluntary and free service provided by SAP UCC.

Client is responsible for installations, updates and the operation of browsers and the SAP GUI.

The installation of an Eclipse tool can be advantageous for the use of the ABAP development environment. Further information and installation instructions are available on the following webpage: https://tools.eu1.hana.ondemand.com/#abap

8. Technical system settings and limitations

In terms of its internal structure, the product is designed in such a way that the associated instructional materials (see clause 9.) may be used by a total of up to 1,000 LEARN users per client. An additional client will be needed if more than a total of 5,000 SAP users are needed for students and resetting one or more clients is not desired.

The SAP S/4HANA system and the associated client are technically configured in such a way that a maximum of 1,250 users can work in parallel in the system ("concurrent users"). Additional hardware resources (see clause 12.) are required for a larger number of concurrent users.

9. Available instructional materials for this product

The following instructional materials are officially supported by SAP UCC for the TLE and can be obtained through SAP UCC:

- Introduction to Application Development with SAP S/4HANA
  - Basic Concepts
  - Database Access
  - Dynamic Programs
  - Modularization
  - ABAP Objects
  - Lock Concept
  - Exception Handling
  - HTML5 CSS JavaScript
- SAPUI5
- OData Services
- Fiori
- Analytical App Development

**Advanced Application Development with SAP S/4HANA**
- CDS Views
- BOPF
- OVP WEB ide

**Introduction to SAP S/4HANA with Global Bike**
- Includes instructional materials in the following areas: SAP S/4HANA Implementation, SAP Navigation, Global Bike Implementation, SD, MM, PP, FI, CO, HCM, WM, PS, EAM, QM, Bike Sharing, Global Bike Go
- Available in English and German

**S/4HANA Customizing with Global Bike**
- Includes instructional materials in the following areas: Basic knowledge, analysis, planning and execution of SAP S/4HANA customization in FI, MM and SD.
- Available in English and German

**The digital transformation of Global Bike**
- Contains various instructional materials concerning digital transformation and the establishment of a bike rental service within the Global Bike model enterprise
- Available in English

The instructional materials are created and maintained by SAP UCC, as well as other UCCs, in cooperation with experts from the SAP University Alliances Community. The instructional materials may also be considered user documentation and may be issued to your own students as PDF documents, subject to appropriate security measures.

**10. Support**

SAP UCC provides support for the TLE as described below. Support is provided exclusively in German and English.

Clients communicate with SAP UCC Support via
- the ticket system ([https://servicedesk.ucc.ovgu.de](https://servicedesk.ucc.ovgu.de)) or using the
- hotline: +49 391 67-54871 (exclusively for malfunctions that impede operations).

SAP UCC will be available to accept Client support requests during normal business hours (8 a.m. to 6 p.m. CET or CEST on business days. See Framework Agreement).
SAP UCC and Client agree to the following response times categorised depending on the urgency:

- Malfunction that impedes operations - response time 8 hours
- Other malfunctions or requests - response time 24 hours

A malfunction that impedes operations shall mean that use of the SAP S/4HANA system for the TLE is impossible or severely limited. Response times commence upon receipt of the respective message during normal business hours and run exclusively during such hours. Messages must be sent by Client or registered lecturers of the Client.

a. Technical support

Technical support covers all questions and problems related to the operation and performance of the S/4HANA system. It exclusively comprises services which are necessary to enable the smooth and error-free use of the ERP core functionalities, along with development functions, of the TLE (see clause 2.).

Processing requests related to impairments of the S/4HANA system due to development activities by the user is excluded from technical support with the exception of a restore.

All technical inquiries and fault reports must be submitted via the SAP UCC ticket system except in the cases of malfunctions that impede operation. Client may report these malfunctions using the hotline. Fault investigation/resolution will be performed by SAP UCC first and second level support. The error report may be sent to SAP SE Support if appropriate.

b. Application support

In the event of problems and questions regarding errors that do not relate to system operation or system performance of the SAP S/4HANA system, SAP UCC will provide application support that is limited to the content specified in clause 9. that is officially supported by the TLE. This is available to all of Client's registered lecturers.

SAP UCC will forward the error message to SAP Global Support in the case of errors that may only be resolved by SAP SE (e.g. program errors). SAP UCC has no influence on any resulting delays.

The following is excluded from application support:

- processing requests related the use and application of the respective TLE;
- support for groups who are not registered as lecturers of the institution;
- all inquiries that do not refer to the contents mentioned in clause 9, e.g. inquiries about own educational materials or in house developments and
- processing inquiries associated with the circumstance that the instructional materials may not be used as expected by the user due to modifications resulting from development activities.

11. Minimum contract term, notice period

The TLE Usage Agreement runs for one year from the date notified by SAP UCC for access activation for the relevant TLE; for more details on this and on the service start date, see the Framework Agreement.
The contract term is automatically extended by an additional year if the TLE Usage Contract is not terminated on six months’ notice to the end of the term. Notice of termination must be given in text form; see the Master Agreement.

A desired activation date may be designated when ordering. SAP UCC will attempt to comply with any such request; see the Framework Agreement under “Commencement of Performance.”

12. Remuneration

For the provision of the TLE(s) Client shall pay SAP UCC a fee that is dependent upon the number ordered in accordance with the following summary following receipt of a verifiable invoice. See Framework Agreement for more detailed information on remuneration, ancillary costs and payment.

<table>
<thead>
<tr>
<th>Number TLEs (S/4HANA Systems)</th>
<th>Subscription period</th>
<th>Remuneration (net)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise Management with Global Bike in SAP S/4HANA 2020 - exclusive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (with 5 clients)</td>
<td>1 year</td>
<td>EUR 12,000</td>
</tr>
</tbody>
</table>

Fee-based expansions

Memory expansions may be purchased if there is a need for additional storage capacity for the SAP HANA database and/or for the SAP application server. Furthermore, additional clients may be obtained if the number of clients delivered with the S/4HANA system by default is not sufficient. The fees described below will be charged for these expansions.

<table>
<thead>
<tr>
<th>Expansions to <strong>Enterprise Management with Global Bike in SAP S/4HANA 2020 – exclusive</strong></th>
<th>Subscription period</th>
<th>Remuneration (net)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per 1 additional client</td>
<td>1 year</td>
<td>EUR 1,000</td>
</tr>
<tr>
<td>Each 32 GB additional SAP HANA database RAM</td>
<td>1 year</td>
<td>EUR 1,000</td>
</tr>
<tr>
<td>Each 1 GB RAM additional SAP application server</td>
<td>1 year</td>
<td>EUR 125</td>
</tr>
<tr>
<td>Direct access to the SAP HANA database</td>
<td>1 year</td>
<td>EUR 1,400</td>
</tr>
</tbody>
</table>
13. Privacy Notice

a. General provisions

SAP UCC provides Client a privacy notice that is available at the following SAP UCC website on a voluntary and gratuitous basis as a non-binding proposal that is subject to the exclusion of any warranties:

https://portal.ucc.ovgu.de/data-privacy-tle

The Client is obliged to have privacy notice subject to legal review prior use. SAP UCC does not provide legal advice. The Client is also obliged to provide the “Privacy Notice for a Teaching and Learning Environment (TLE)” to users (e.g. students). Additional details concerning testing, modification and integration are set out in the Framework Agreement.

The Client is obliged to observe the basic principles of data minimization in accordance with the GDPR and shall ensure that, as far as possible, no personal data is entered in the TLE subject to its use.

b. Product-specific features that supplement the Contract Data Processing Framework Agreement

- None -