fluid
systems
automation
irrigation

irrigation.**cloud**

the future of irrigation

esy**LOCK**

simply push and go

Irrigation
CLOUD

esy**LOCK®**

About FSA Group

fluid systems automation group

fluid systems automation irrigation

fluid systems automation service

Irrigation CLOUD

esyLOCK®

fluid systems automation valve

fluid systems automation irrigation

esyLOCK®

DRY OR WET

NO WAITING TIMES

FAST

360° ROTATABLE

HOT OR COLD

SIMPLY PUSH

RELEASABLE

MAX. FLOW RATE

PN10 MAX PRESSURE

Irrigation CLOUD

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Only 2 steps necessary:

1. Cut

Cutting and assembling only takes 5 seconds!

2. Push

Finish!

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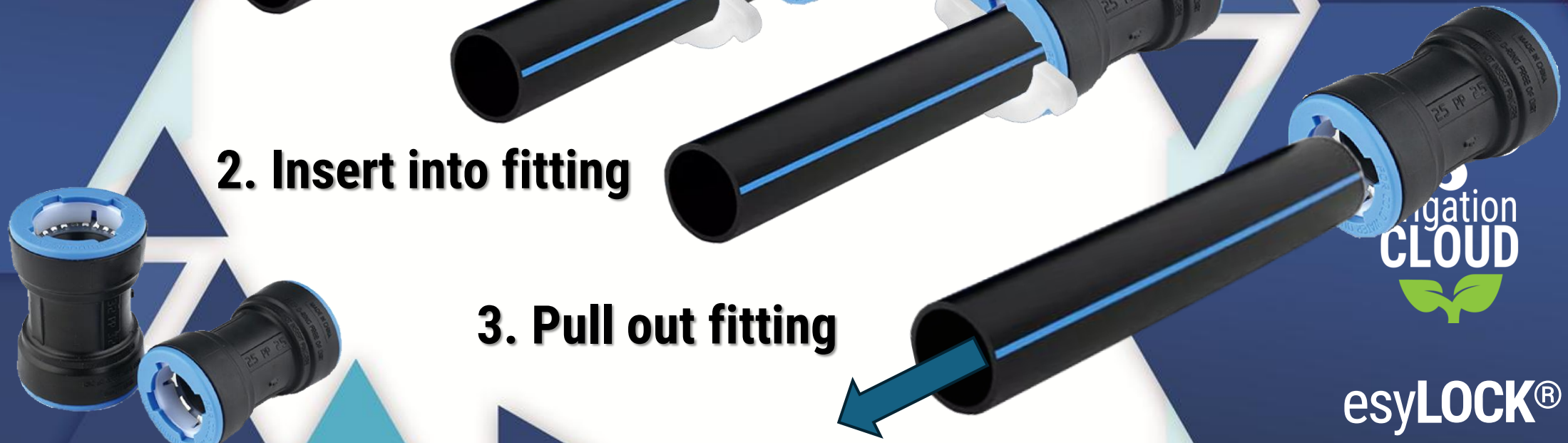
Release as simple as connecting

1. Click on release tool

Cutting and assembling only takes 5 seconds!

2. Insert into fitting



3. Pull out fitting

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Huge variety of fittings

Standard HDPE and PE Tubing!

20 mm

25 mm

32 mm

PIPE CONNECTOR

ARTICLE NUMBER			EAN
21001-20	PE pipe	20 mm	4251184969217
21001-25	PE pipe	25 mm	4251184969224
21001-32	PE pipe	32 mm	4251184969231

PIPE CONNECTOR WITH REDUCTION

ARTICLE NUMBER					EAN
21002-2520	PE pipe	25 mm	PE pipe	20 mm	4251184969248
21002-3220	PE pipe	32 mm	PE pipe	20 mm	4251184969255
21002-3225	PE pipe	32 mm	PE pipe	25 mm	4251184969262

FEMALE THREAD ADAPTER

ARTICLE NUMBER					EAN
21003-2012	PE pipe	20 mm	female thread	1/2"	4251184969279
21003-2034	PE pipe	20 mm	female thread	3/4"	4251184969286
21003-201	PE pipe	20 mm	female thread	1"	4251184969293
21003-2512	PE pipe	25 mm	female thread	1/2"	4251184969309
21003-2534	PE pipe	25 mm	female thread	3/4"	4251184969316
21003-251	PE pipe	25 mm	female thread	1"	4251184969323
21003-3212	PE pipe	32 mm	female thread	1/2"	4251184969330
21003-3234	PE pipe	32 mm	female thread	3/4"	4251184969347
21003-321	PE pipe	32 mm	female thread	1"	4251184969354

MALE THREAD ADAPTER

ARTICLE NUMBER					EAN
21004-2012	PE pipe	20 mm	male thread	1/2"	4251184969361
21004-2034	PE pipe	20 mm	male thread	3/4"	4251184969378
21004-201	PE pipe	20 mm	male thread	1"	4251184969385
21004-2512	PE pipe	25 mm	male thread	1/2"	4251184969392
21004-2534	PE pipe	25 mm	male thread	3/4"	4251184969408
21004-251	PE pipe	25 mm	male thread	1"	4251184969415
21004-3212	PE pipe	32 mm	male thread	1/2"	4251184969422
21004-3234	PE pipe	32 mm	male thread	3/4"	4251184969439
21004-321	PE pipe	32 mm	male thread	1"	4251184969446

T-PIECE PIPE CONNECTOR

ARTICLE NUMBER			EAN
25001-20	PE pipe	20 mm	4251184969453
25001-25	PE pipe	25 mm	4251184969460
25001-32	PE pipe	32 mm	4251184969477

T-PIECE PIPE CONNECTOR WITH REDUCTION

ARTICLE NUMBER					EAN
25002-2520	PE pipe	25 mm	PE pipe	20 mm	4251184969484
25002-3220	PE pipe	32 mm	PE pipe	20 mm	4251184969491
25002-3225	PE pipe	32 mm	PE pipe	25 mm	4251184969507

T-PIECE PIPE CONNECTOR WITH FEMALE THREAD

ARTICLE NUMBER					EAN
25003-2012	PE pipe	20 mm	female thread	1/2"	4251184969514
25003-2034	PE pipe	20 mm	female thread	3/4"	4251184969521
25003-201	PE pipe	20 mm	female thread	1"	4251184969538
25003-2512	PE pipe	25 mm	female thread	1/2"	4251184969545
25003-2534	PE pipe	25 mm	female thread	3/4"	4251184969552
25003-251	PE pipe	25 mm	female thread	1"	4251184969569
25003-3212	PE pipe	32 mm	female thread	1/2"	4251184969576
25003-3234	PE pipe	32 mm	female thread	3/4"	4251184969583
25003-321	PE pipe	32 mm	female thread	1"	4251184969590

T-PIECE PIPE CONNECTOR WITH MALE THREAD

ARTICLE NUMBER					EAN
25004-2012	PE pipe	20 mm	male thread	1/2"	4251184969606
25004-2034	PE pipe	20 mm	male thread	3/4"	4251184969613
25004-201	PE pipe	20 mm	male thread	1"	4251184969620
25004-2512	PE pipe	25 mm	male thread	1/2"	4251184969637
25004-2534	PE pipe	25 mm	male thread	3/4"	4251184969644
25004-251	PE pipe	25 mm	male thread	1"	4251184969651
25004-3212	PE pipe	32 mm	male thread	1/2"	4251184969668
25004-3234	PE pipe	32 mm	male thread	3/4"	4251184969675
25004-321	PE pipe	32 mm	male thread	1"	4251184969682

90° PIPE CONNECTOR

ARTICLE NUMBER			EAN
25007-20	PE pipe	20 mm	4251184969699
25007-25	PE pipe	25 mm	4251184969705
25007-32	PE pipe	32 mm	4251184969712

90° PIPE CONNECTOR WITH FEMALE THREAD

ARTICLE NUMBER					EAN
25008-2012	PE pipe	20 mm	female thread	1/2"	4251184969729
25008-2034	PE pipe	20 mm	female thread	3/4"	4251184969736
25008-201	PE pipe	20 mm	female thread	1"	4251184969743
25008-2512	PE pipe	25 mm	female thread	1/2"	4251184969750
25008-2534	PE pipe	25 mm	female thread	3/4"	4251184969767
25008-251	PE pipe	25 mm	female thread	1"	4251184969774
25008-3212	PE pipe	32 mm	female thread	1/2"	4251184969781
25008-3234	PE pipe	32 mm	female thread	3/4"	4251184969798
25008-321	PE pipe	32 mm	female thread	1"	4251184969804

90° PIPE CONNECTOR WITH MALE THREAD

ARTICLE NUMBER					EAN
23003-1012	PE pipe	20 mm	male thread	1/2"	4251184970071
23003-2034	PE pipe	20 mm	male thread	3/4"	4251184970828
23003-201	PE pipe	20 mm	male thread	1"	4251184970835
23003-2512	PE pipe	25 mm	male thread	1/2"	4251184970842
23003-2534	PE pipe	25 mm	male thread	3/4"	4251184970859
23003-251	PE pipe	25 mm	male thread	1"	4251184970866
23003-3212	PE pipe	32 mm	male thread	1/2"	4251184970873
23003-3234	PE pipe	32 mm	male thread	3/4"	4251184970880
23003-321	PE pipe	32 mm	male thread	1"	4251184970897

T-PIECE PIPE CONNECTOR WITH REDUCTION

ARTICLE NUMBER					EAN
23009-2025	Pipe	20 mm	PE pipe	25 mm	4251184969903
23009-2032	Pipe	20 mm	PE pipe	32 mm	4251184969910
23009-2332	Pipe	25 mm	PE pipe	32 mm	4251184969927

T-PIECE ADAPTER

ARTICLE NUMBER					EAN
23008-1600	Pipe	16 mm	PE pipe	20 mm	4251184969934
23008-2000	Pipe	20 mm	PE pipe	20 mm	4251184969941
23008-1625	Pipe	16 mm	PE pipe	25 mm	4251184969958
23008-2025	Pipe	20 mm	PE pipe	25 mm	4251184969965
23008-2320	Pipe	25 mm	PE pipe	20 mm	4251184969972
23008-1632	Pipe	16 mm	PE pipe	32 mm	4251184969989
23008-2032	Pipe	20 mm	PE pipe	32 mm	4251184969996
23008-2500	Pipe	25 mm	PE pipe	32 mm	4251184970000

T-PIECE ADAPTER

ARTICLE NUMBER					EAN
23010-2016	PE pipe	20 mm	Pipe	16 mm	4251184970013
23010-2516	PE pipe	25 mm	Pipe	16 mm	4251184970022
23010-2520	PE pipe	25 mm	Pipe	20 mm	4251184970039
23010-3216	PE pipe	32 mm	Pipe	16 mm	4251184970046
23010-3220	PE pipe	32 mm	Pipe	20 mm	4251184970053
23010-3225	PE pipe	32 mm	Pipe	25 mm	4251184970060

SHUT-OFF VALVE

ARTICLE NUMBER			EAN
24001-20	PE pipe	20 mm	4251184913077
24001-25	PE pipe	25 mm	4251184913084
24001-32	PE pipe	32 mm	4251184913091

SHUT-OFF VALVE WITH FEMALE THREAD

ARTICLE NUMBER			EAN
24003-20	PE pipe	20 mm	4251184913107
24003-25	PE pipe	25 mm	4251184913114
24003-32	PE pipe	32 mm	4251184913121

PIPE END CAP

ARTICLE NUMBER			EAN
25001-20	PE pipe	20 mm	4251184913138
25001-25	PE pipe	25 mm	4251184913145
25001-32	PE pipe	32 mm	4251184913152

FITTING END CAP

ARTICLE NUMBER			EAN
25003-20	PE pipe	20 mm	4251184910168
25003-25	PE pipe	25 mm	4251184910175
25003-32	PE pipe	32 mm	4251184910182

UNIVERSAL T-PIECE

ARTICLE NUMBER							EAN
22005-2320	PE pipe	25 mm	PE pipe	20 mm	Universal	25 mm	4251184910199
22005-3220	PE pipe	32 mm	PE pipe	20 mm	Universal	32 mm	4251184910205
22005-3225	PE pipe	32 mm	PE pipe	25 mm	Universal	32 mm	4251184910212

UNIVERSAL T-PIECE WITH FEMALE THREAD

ARTICLE NUMBER							EAN
22006-2212	PE pipe	25 mm	female thread	1/2"	Universal	25 mm	4251184910228
22006-2534	PE pipe	25 mm	female thread	3/4"	Universal	25 mm	4251184910237
22006-3212	PE pipe	32 mm	female thread	1/2"	Universal	32 mm	4251184910244
22006-3234	PE pipe	32 mm	female thread	3/4"	Universal	32 mm	4251184910251
22006-321	PE pipe	32 mm	female thread	1"	Universal	32 mm	4251184910268

UNIVERSAL T-PIECE WITH MALE THREAD

ARTICLE NUMBER							EAN
22007-2212	PE pipe	25 mm	male thread	1/2"	Universal	25 mm	4251184910275
22007-2534	PE pipe	25 mm	male thread	3/4"	Universal	25 mm	4251184910282
22007-3212	PE pipe	32 mm	male thread	1/2"	Universal	32 mm	4251184910299
22007-3234	PE pipe	32 mm	male thread	3/4"	Universal	32 mm	4251184910305
22007-321	PE pipe	32 mm	male thread	1"	Universal	32 mm	4251184910312

UNIVERSAL 90° PIPE CONNECTOR

ARTICLE NUMBER					EAN
22004-2020	PE pipe	20 mm	Universal	20 mm	4251184910329
22004-2525	PE pipe	25 mm	Universal	25 mm	4251184910336
22004-3232	PE pipe	32 mm	Universal	32 mm	4251184910343

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WIFI

WIFI / REPEATER

4G / 5G

WIFI / REPEATER

WIFI

GATEWAY

WIFI / REPEATER

VBOX

DURCHFLUSS

INTELLIVALVE

WIFI / REPEATER

VENTIL

UNISENSOR

BODENFEUCHTE TEMPERATUR

DURCHFLUSS

7 IN 1

Irrigation CLOUD

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Irrigation CLOUD

USPs

- Controller directly integrated into valve box cover
- You only need *Water*, *Power* and *WiFi*, nothing else!
- No Drilling into insulation or hundreds of meters of cables
- Installation and commissioning within 15 Minutes
- Combine any number of boxes to one installation
- Seamless integration of sensors
- Remote Access to customers‘ installations incl. User management

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Seamless integration of sensors

Irrigation CLOUD

GATEWAY

UNISENSOR

UNISENSOR

UNISENSOR

UNISENSOR

UNISENSOR

Humidity & Temperature

Flow

Level

7in1

Only 1 Gateway for up to 40 Sensors

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irrigation.cloud Software

Irrigation CLOUD

Access irrigation.cloud via
PC
Tablet
Smartphone App

DEMO

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irrigation.cloud Software

Irrigation CLOUD

Dashboard

DEMO

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Map View

DEMO

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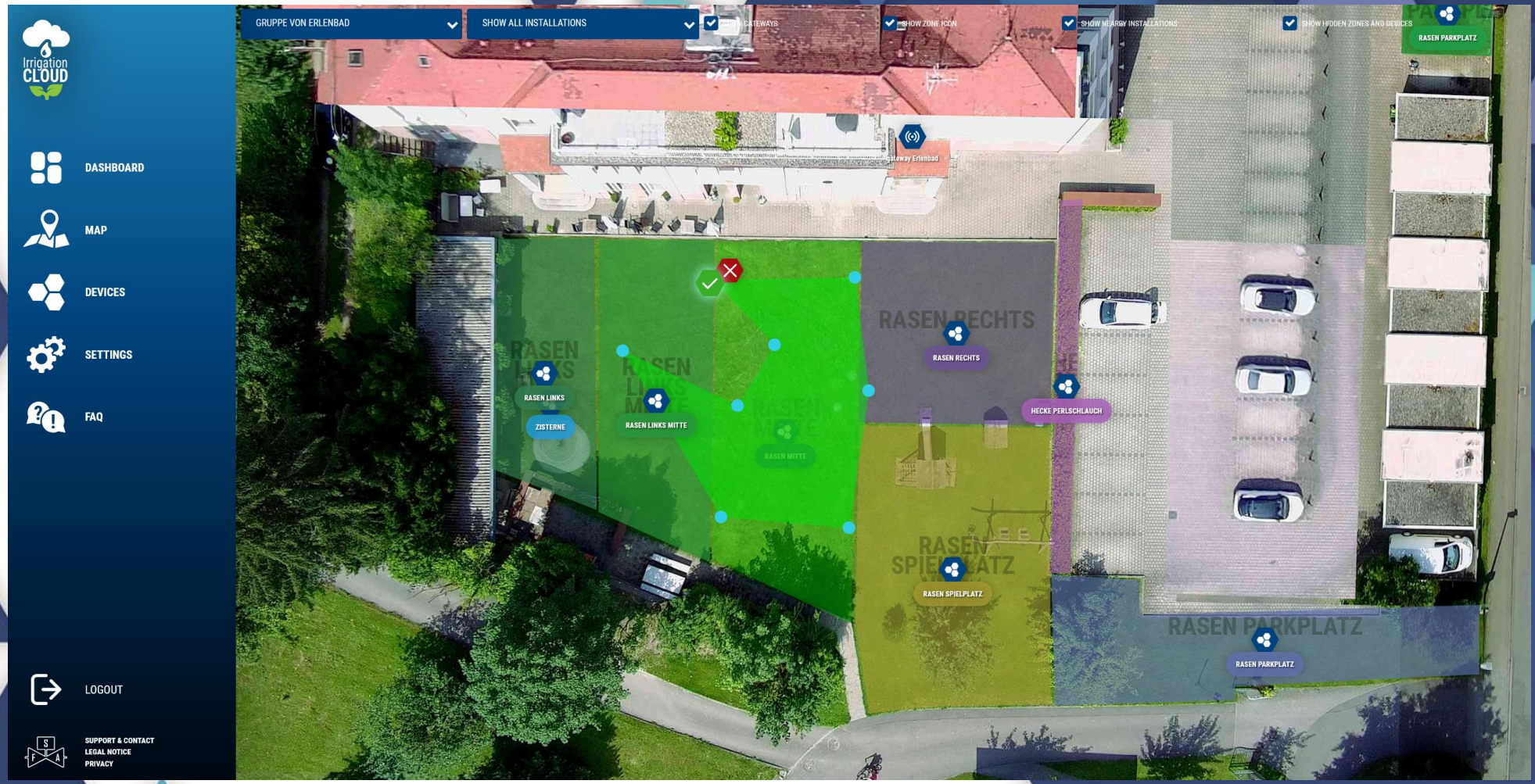
Drawing Zones



DEMO

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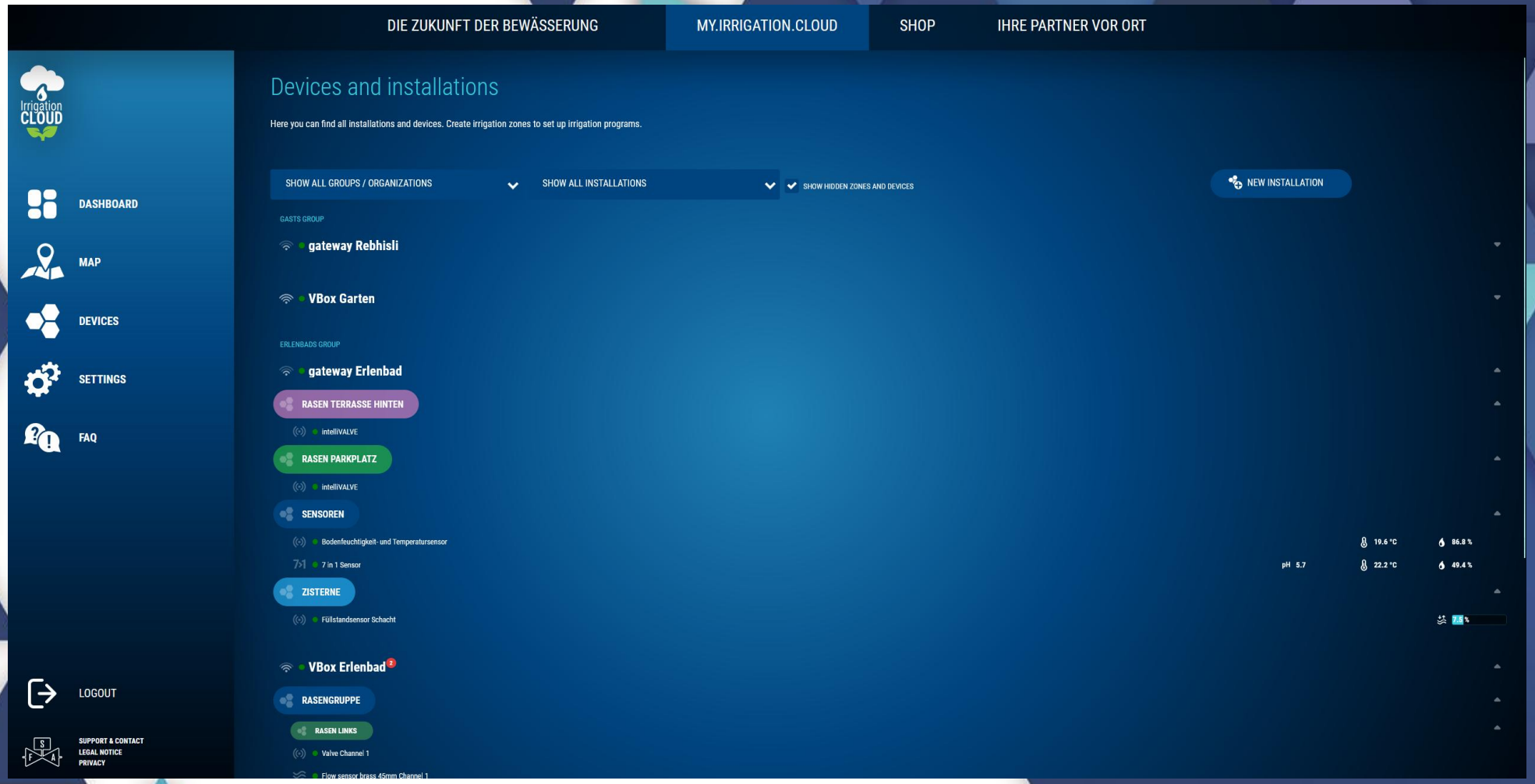
Device View



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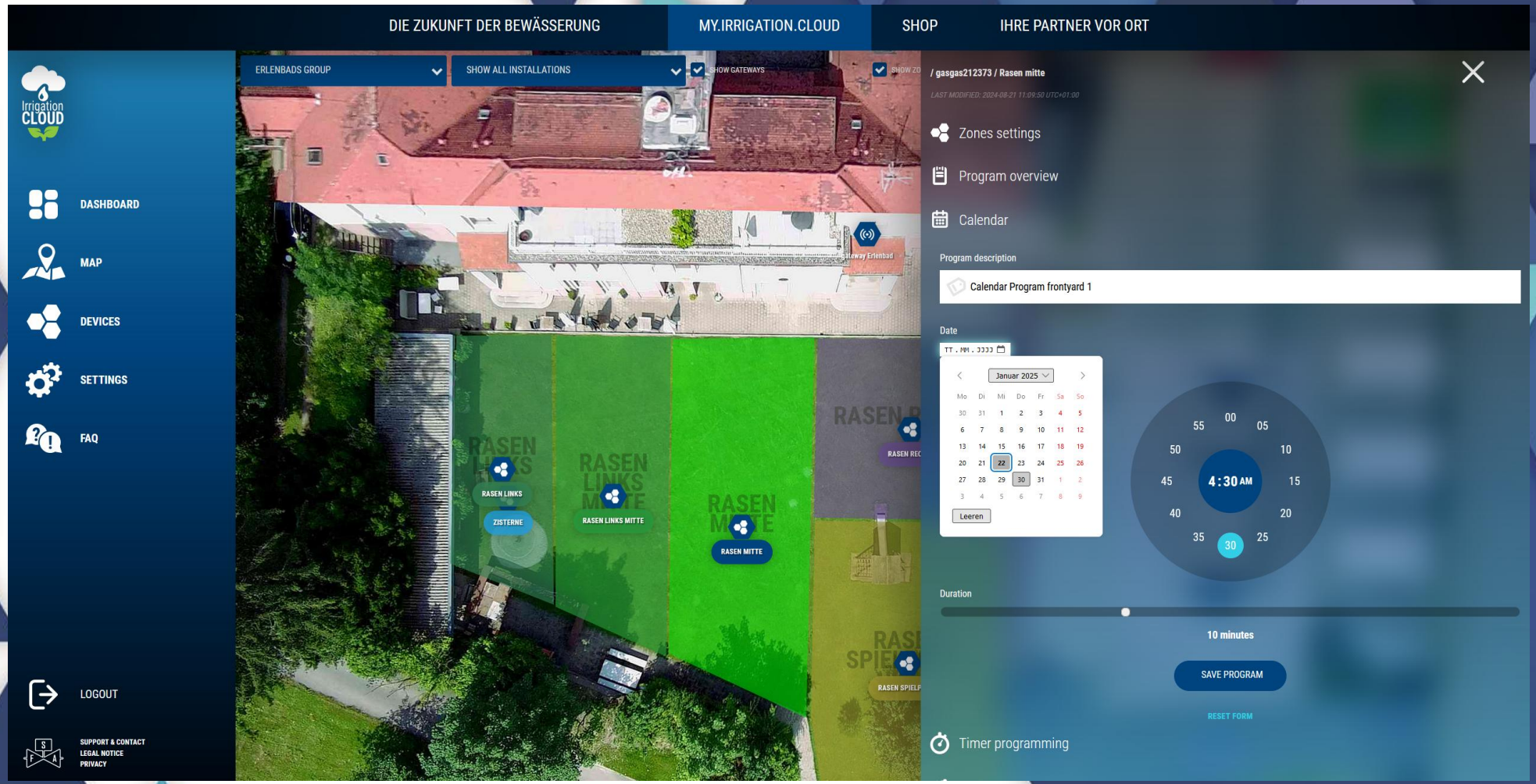
Calendar Program



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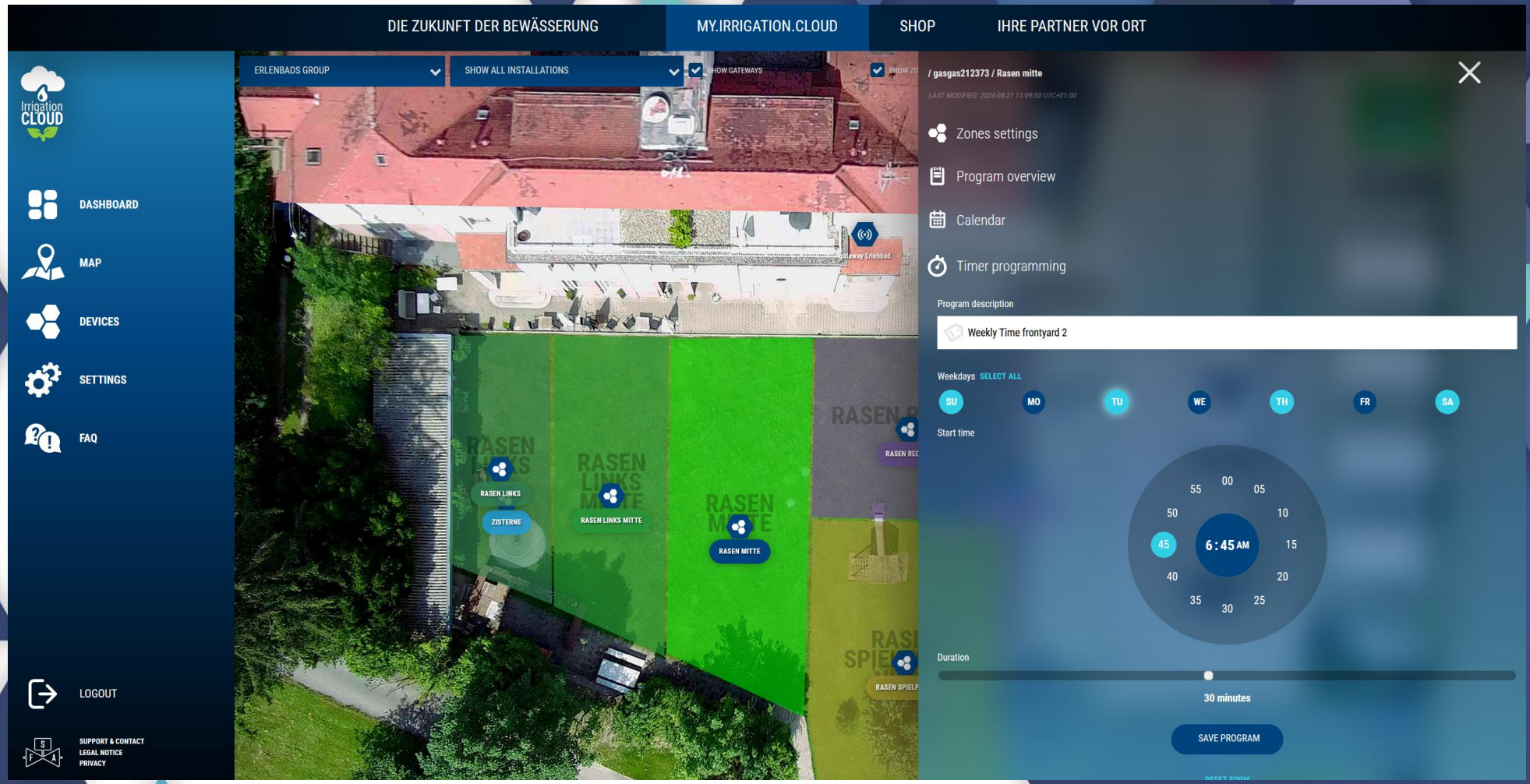
Week Timer



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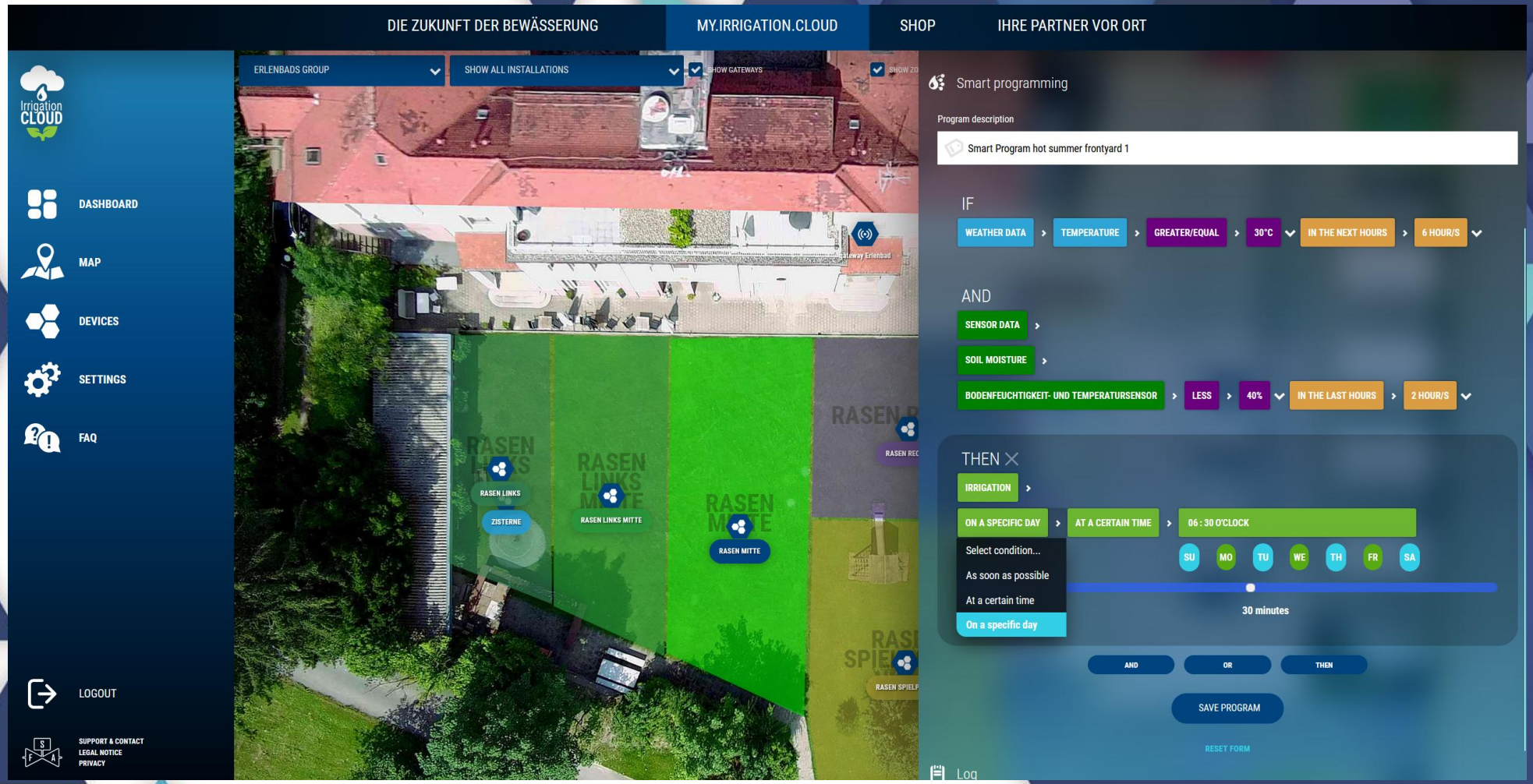
Smart Programming



DEMO

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Administrate several customers and groups

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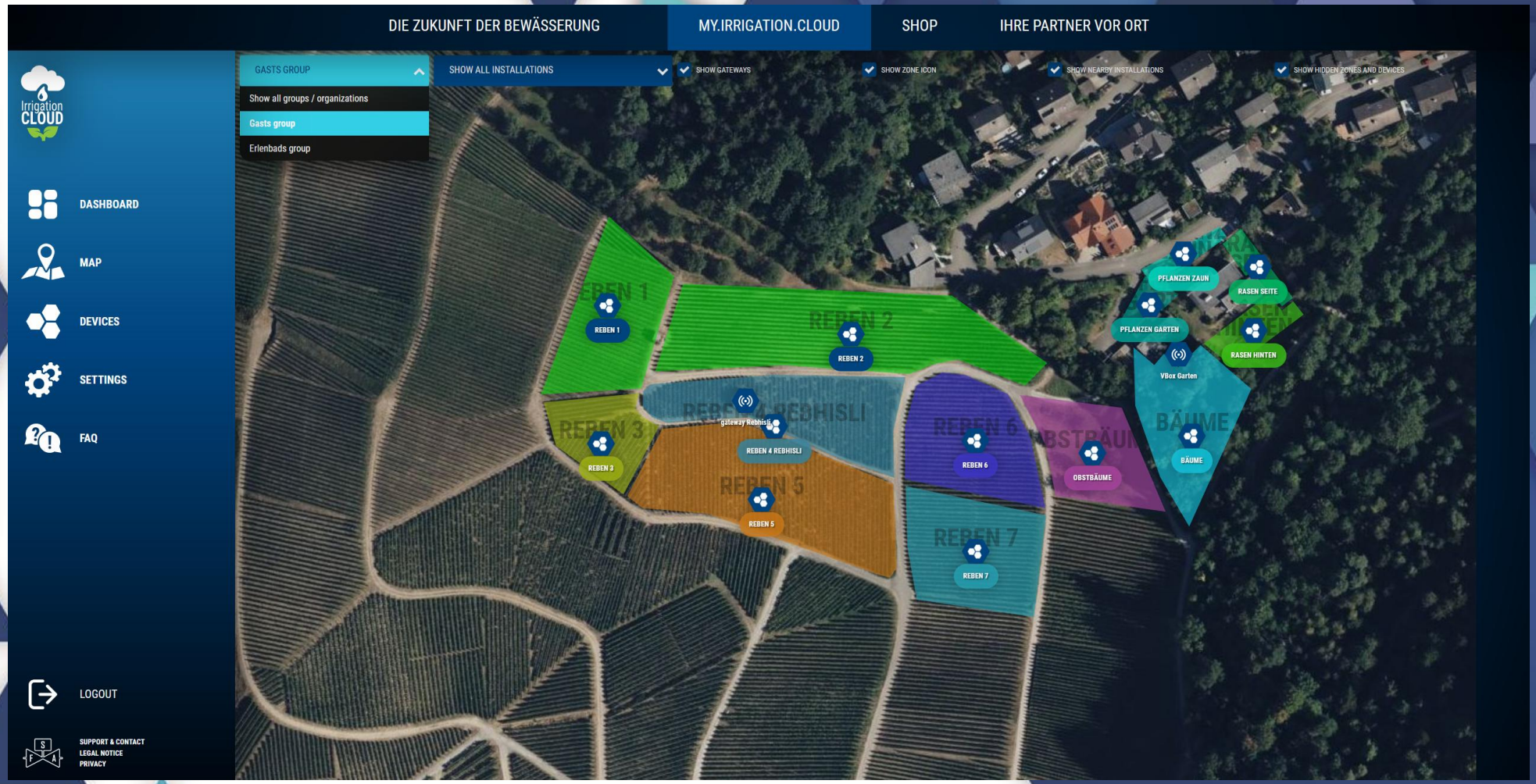

DEMO

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Administrate several members and permissions

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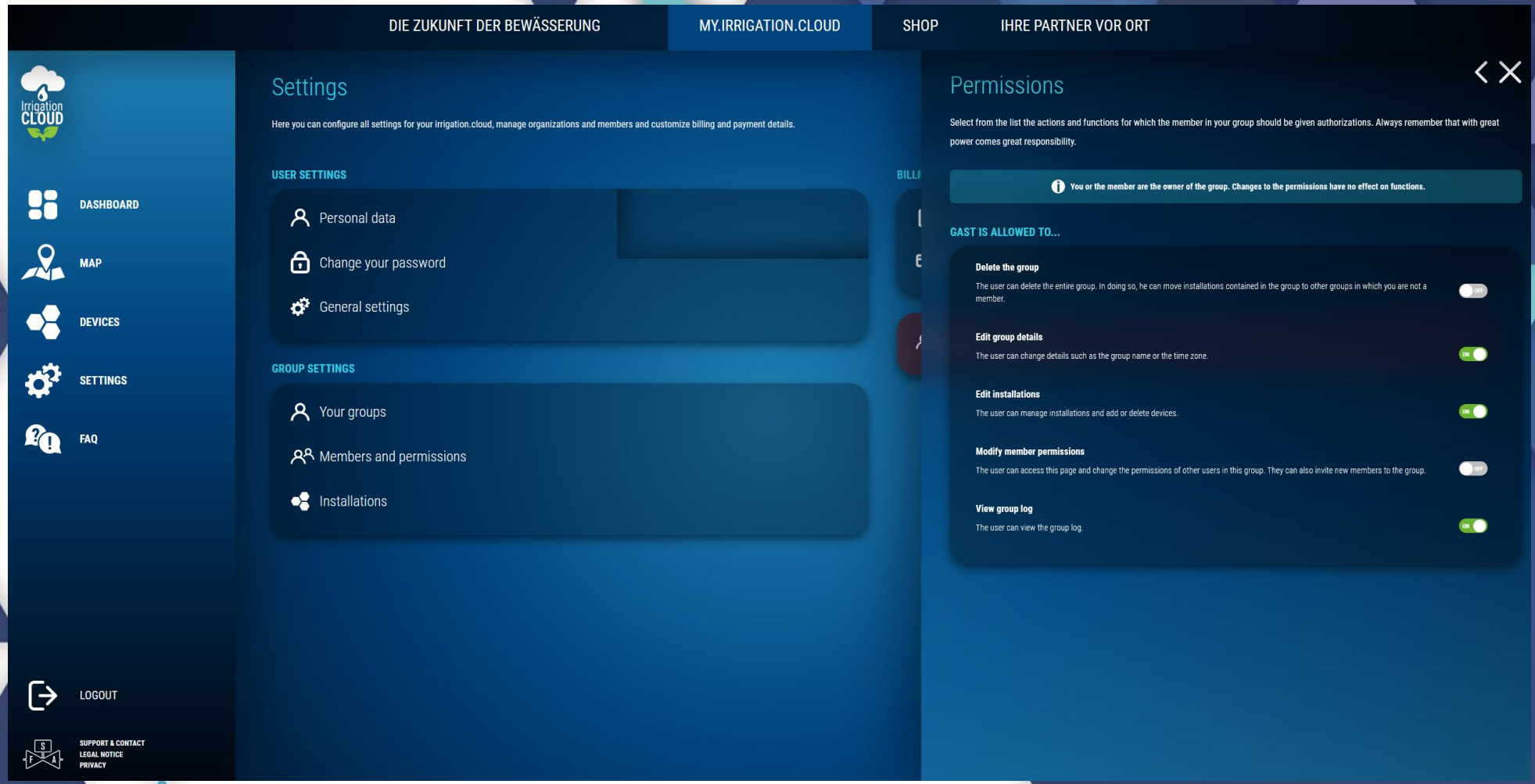

DEMO

Use Case: Fully automatic cistern refill

1. Vbox-Controller with 8 ports
2. Use one Port with brass solenoid valve (for drinking water)
3. Connect Water line to solenoid valve
4. Lay tube from valve into cistern (with enough distance to max. water level)
5. Put level sensor into cistern (with battery powered Sensor Module)
6. Create a smart programm for the channel, the valve is connected to:
   IF LevelSensor **IS LESS THAN** e.g. 20cm **THEN** „irrigate“ (switch valve) for 20 minutes

Result: When the level of the cistern drops below 20cm, the solenoid valve opens and refills the cistern for 20 minutes

Needed products (additionally to the Vbox Controller, that is used for the irrigation):

- 1 brass solenoid valve for drinking water (approx. 50€)
- 1 Universal Sensor module + Level Sensor + Battery: 300 €
- 1 Gateway (to connect Sensors to) incl. Power supply: 115 €

Total invest for automatic cistern refill: **465 €** (list price)

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Use Case: Vertical Green

For a vertical green wall you will need:

- 1 VBox Controller (250 €)
- 1 Power supply (25 €)
- 1 12V DC 10A Power Supply for the pump (50 €)
- 1 Relay for switching the pump (11 €)
- 1 Small 12V DC submersible pump with 300 l/h @ 1.5 bar (70 €)
- 16mm Tubing and Drippers

In case you want to have soil moisture and temperature sensors in the wall (feedback):

- 1 Gateway (for up to 40 Sensors) incl. Power supply (115 €)
- Universal Sensor module + Battery (up to 10 years) + moisture/temp. Sensor (185 €)

You can use up to 40 of the sensors to distribute it over the wall with only one WiFi-Gateway

In case you don‘t have WiFi of the customer (that can be used), you will additionally need:

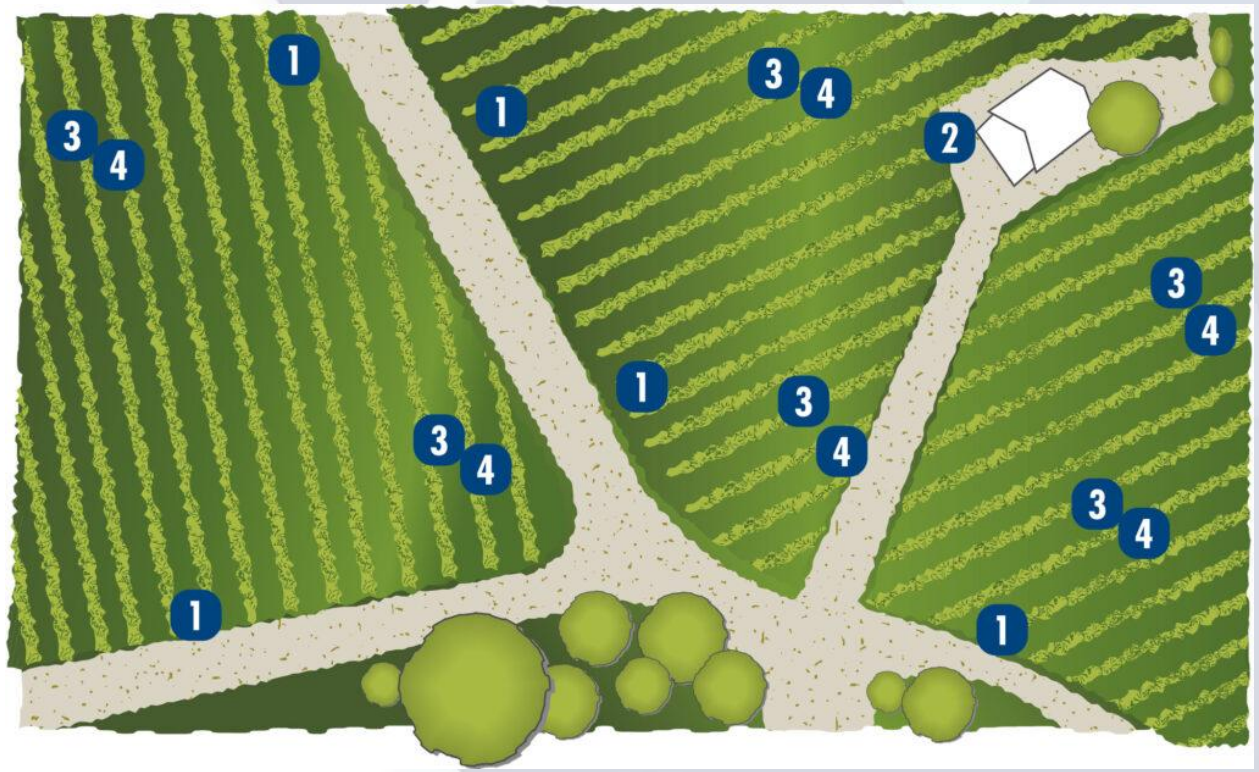
- 1 (Outdoor) LTE-Router (190 €)
- 1 SIM Card per VBox Controller or per up to 10 Sensors (40 € for one year, 200 € 5 year or 400 € 10 year)
  In this case 2 SIM-Cards, as 1VBox Controller + 1 Gateway with sensors

Use Case: big area

For a bigger area with widely spread irrigation zones:

- 1 VBox Controller in each zone (250 €)
- 1 Power supply (25 €)

It locally only need power, WiFi and water

In case, there is no WiFi available, you can use:

- Eather an Outdoor WiFi-Repeater (up to 200m) (75 €)
- Or an Outdoor LTE Router (190 €)
  With 1 SIM package per VBox Controller (40 € per year)