INDRIVETEC

Innovative Drive Technologies AG



Indrivetec AG is located in Zürich Oerlikon, Switzerland. Production is carried out in Zürich and with external production partners in Switzerland and in Bulgaria.

The activities of Indrivetec Germany GmbH based in Hamburg are concentrated to business development of energy storage systems.

The whole team of Indrivetec is working since many years, some for more than 25 years, in the business and technology of power electronics.

Your expert for linear motor drives and electrical energy storage

About Indrivetec:

25 Years experience in power electronics

476 Megawatt worldwide experience and installations

95 Members in Switzerland, Bulgaria and Germany

195 Projects confirms the international standards for quality


Energy Storage Systems


Drive inverters


Linear Motor Drives


Special-purpose inverters



Energy Storage Systems

Modular and flexible electrical energy storage systems for a reliable power supply

Optimized asset performance by stabilizing frequency and voltage

Large range of applications

Increase of Self-Consumption

Back-up power for commercial and industrial application



Energy Storage Systems

Multiple uses in the industrial, commercial and utility sector

Operation in highly developed and weak grids

Balancing of various energy various sources

Islanding and black start capability

Scalable up to the multi-MW-range



FlexConvert PCS

Fully integrated unit including interface to BMS

Integrated On-grid and Off-grid operation modes

Compatible for various energy storage systems

Innovative cooling concept (compact and energy-efficient)

BDEW and ARN 4110 certification



FlexConvert PCS

Power capability table

			Rated active power at cos phi: 0,9						
Nom. AC voltage VAC	Min. DC voltage VDC	Max. DC voltage VDC	FC250	FC320	FC500	FC750	FC1000	FC1500	FC2000
180	300	1100	100	120	200	300	400	600	800
330	540	1100	175	220	350	525	700	1050	1400
400	650	1100	200	270	450	675	900	1350	1800
480	**780**	**1100**	**250**	**320**	**500**	**750**	**1000**	**1500**	**2000**
600	980	1100	300	400	650	950	1300	1950	2600
690	1100	1100	350	460	750	1075	1500	2250	3000



FlexConvert PCS

No power derating with high DC-voltages up to 1100 VDC

Smallest unit volume and lowest weight per kW

Optional cooling systems for operation without derating up to 55° C

Optional heating systems for operation down to – 40° C

Outdoor solutions IP55 – IP65



Drive inverters

Inverters to optimize the start-up and speed behavior of AC motors

Inverters to optimize the start-up and speed behavior of DC motors

Inverters for speed and torque control

Inverters for pumping and ventilation systems and traction applications



Drive inverters

Safe Torque Off Interface

Parameters:

Lifetime:	**10 years**
Power supply:	**24 VDC ± 5 %, 2 A**
Operation temp:	**-25°C to + 70°C**



РТИФИКАТ ◆ CERTIFICADO ◆ CERT

CERTIFICATE

No. Z10 18 06 99402 001

Holder of Certificate: INDRIVETEC AG
Hagenholzstrasse 71
8050 Zürich
SWITZERLAND

Factory(ies): 99398

Certification Mark:

Product: Safety components

Model(s): STO PCB Control Interface

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Linear Motor Drives

Low voltage frequency inverters 0.5 MVA - 7.0 MVA to feed power to the motors via a central or decentral drive topology

Linear Synchronous PM Motors (Magnet-Runners and Stators)

Speed and position sensor system

Energy-storage based on SuperCaps



Linear Motor Drives

Powerful, maintenance free launch system

High system productivity

High forces

High dynamic response

Wide variety of use



Special-purpose inverters

Mining Converters

DC-DC converters

Water Treatment Converters

H-bridge circuits

Compensation units



Special-purpose inverters

Customized solution

Prototyping

Multi functional converters

Power quality solution

Specially designs



Development

More than 25 years of experience

In house developed DSP control unit and power electronics

Prototype design assembling

Hardware in the loop design and testing

Manufacture-independent supply chain resources



Production

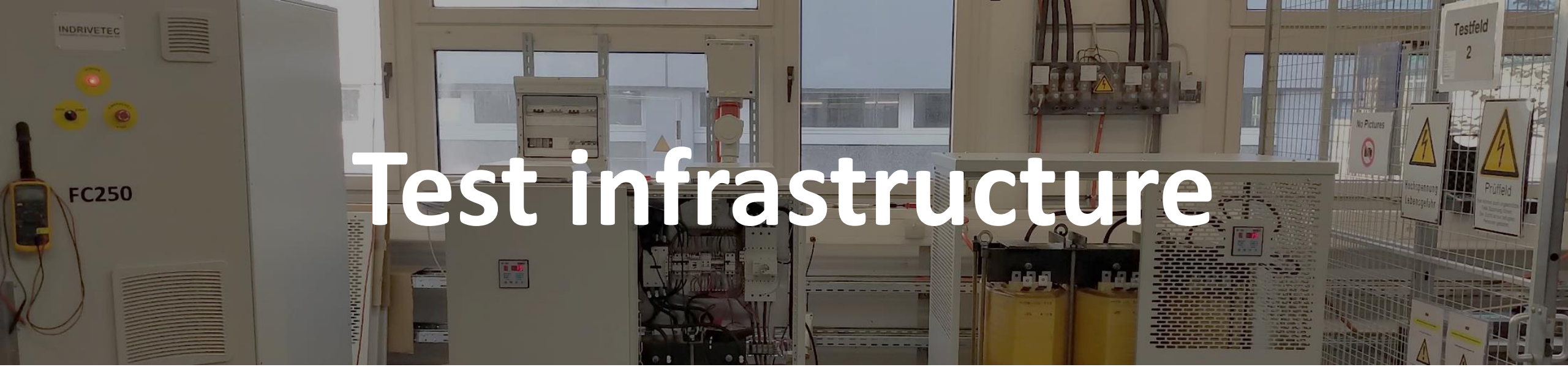
ISO 9001 certified production in Bulgaria and Switzerland

Serial production for high volume orders

Prototype assembling

Functional and type testing

Costumer acceptance / FAT



Test infrastructure

1.2 MW and 3.0 MW test bay for active power testing

6 MVA test bay for reactive power testing

High voltage testing

Heat chamber up to 60° C

Customized testing



Service program

Servicelevel	Basic Legal warranty	Basic + Extended warranty	Comfort	Premium
Inspection	-	inclusive	inclusive	inclusive
Maintenance	-	-	inclusive	inclusive
Spare parts	-	-	-	inclusive
Transport cost	-	-	-	inclusive
Availibility on site	in consultation	in consultation	< 168 hours	< 72 hours
24 / 7 Hotline	-	-	inclusive	inclusive
Yearly status report	-	-	inclusive	inclusive
Life-Cycle Management	-	-	-	inclusive



Training program

Level 1 – “basic knowledge”

Safety functions of PCS

Coolant system

Visual checks

Maintenance



Training program

Level 2 - “Commissioning”

Cold commissioning (IDT protocol)

Hot commissioning (IDT protocol)

Maintenance (IDT protocol)

Troubleshooting with IDT support hotline













References








centrica
aggreko
ENGIE
Electrabel
INTAMIN
AMUSEMENT RIDES
ELECTRONMASH
SYSTEM SOLUTIONS
Terna
WEMAG
Leclanché
twl
BASF
We create chemistry

References



WEMAG

10 MW

10 x Solo S

8 x FC750

Primary control reserve


Roosecote
49 MW
63 x FC750
Battery storage facilities



WEMAG WBS

3.75 MW

4 x FC750

3 x FC250

Ancillary services and island operation

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TWL

9 MW

9 x FC1000

Controlled power plant battery + gas turbine

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Tilos

800 kW

2 x FC750

Island operation

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Y.Cube 1.0

12 x 250 kW

12 x FC250

Island operation

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Y.Cube 2.0

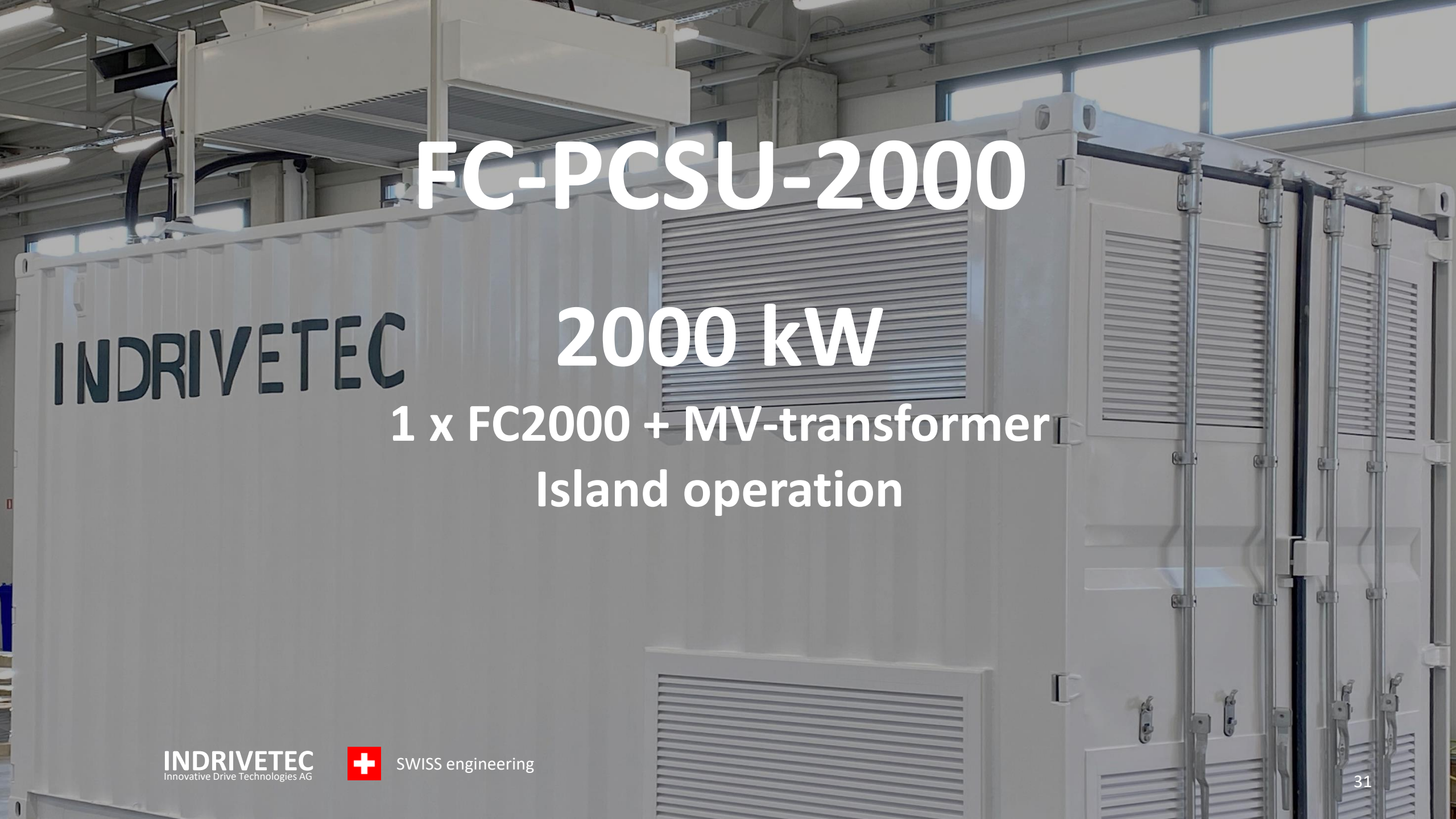
63 x 1 MW

63 x FC1000

Island operation

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FC-PCSU-2000

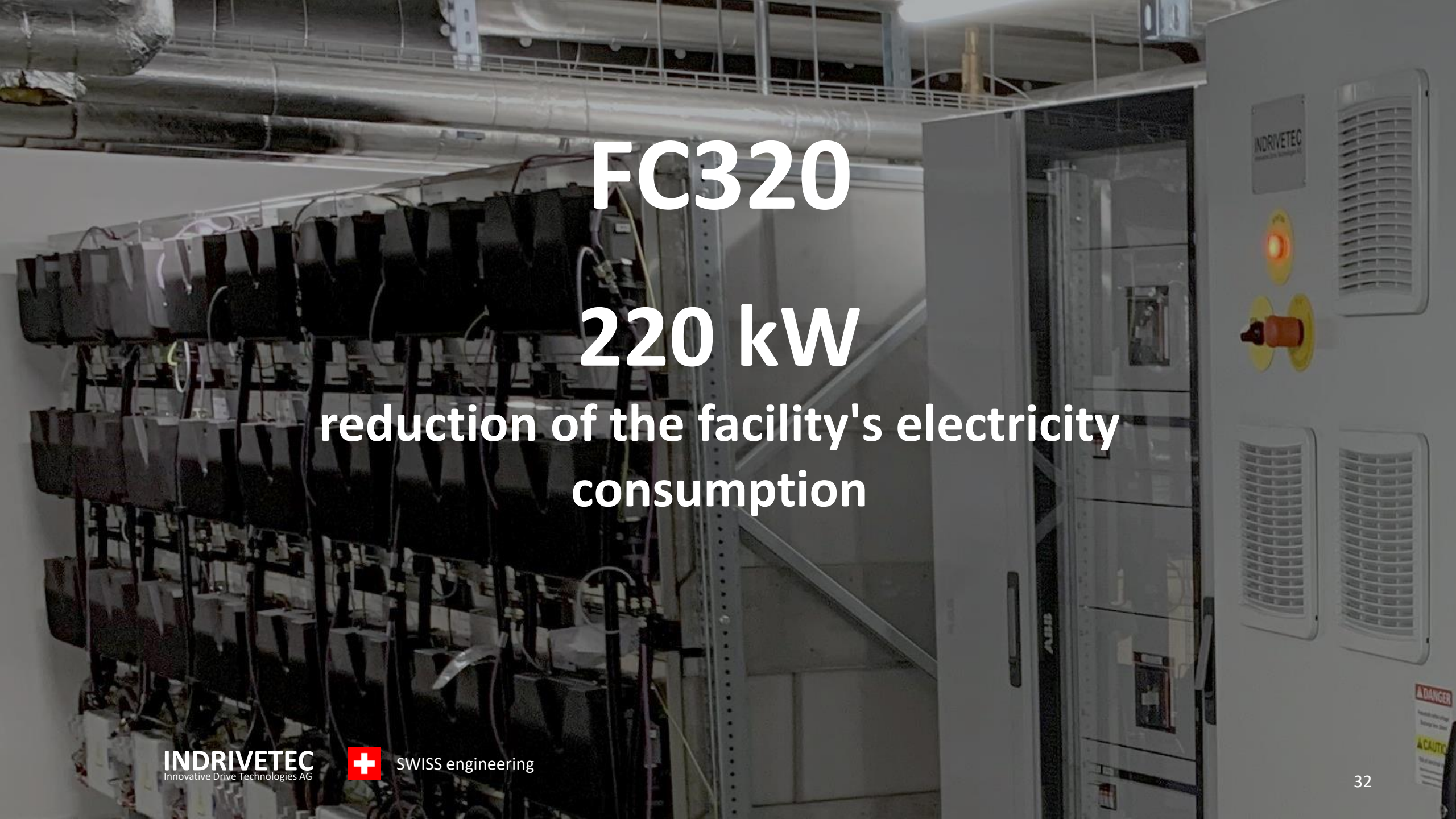
2000 kW

1 x FC2000 + MV-transformer

Island operation

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FC320

220 kW

reduction of the facility's electricity consumption

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Phantasialand

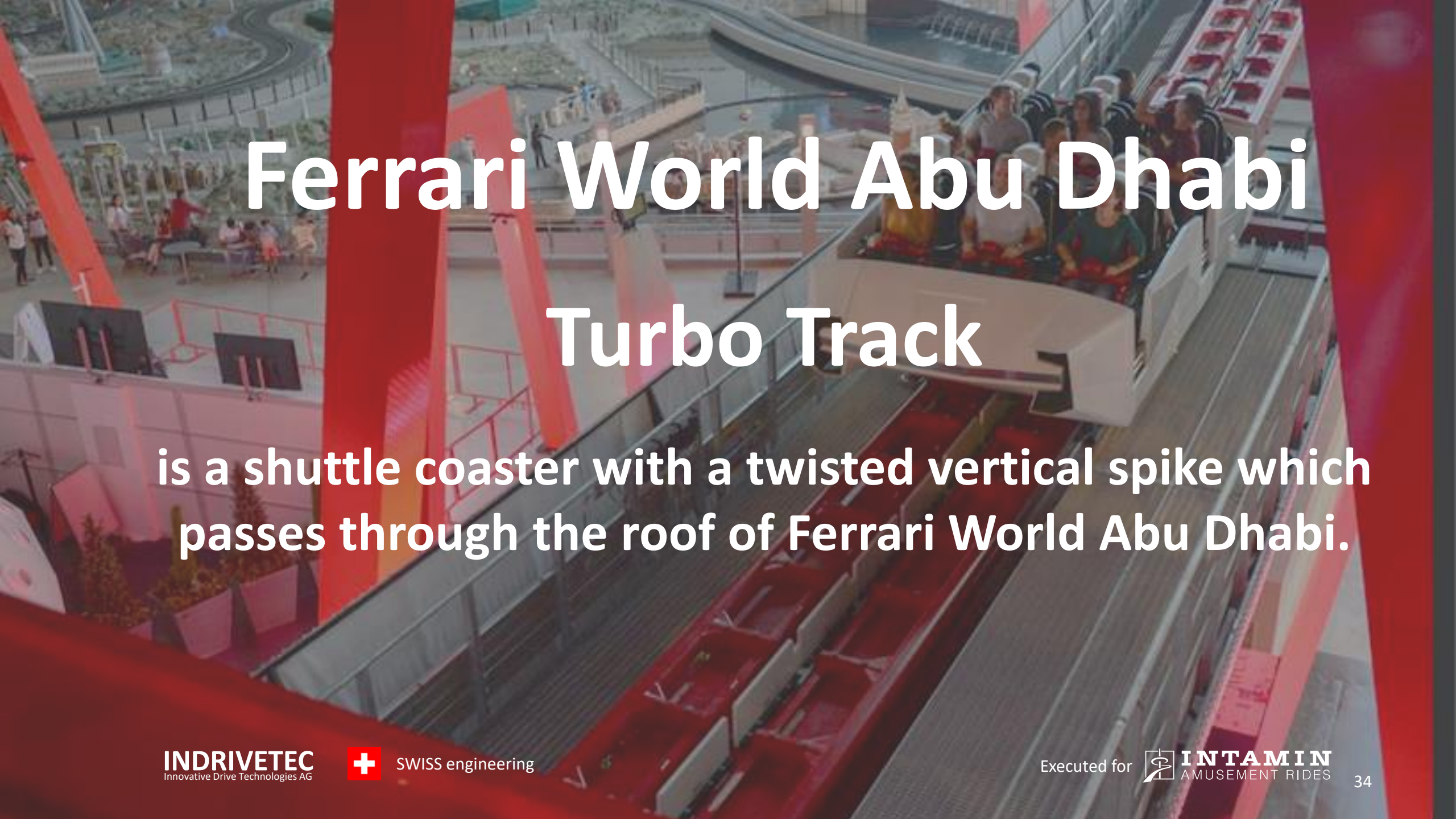
TARON

LSM Multi Launch Coaster, breaking 4 records worldwide

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Ferrari World Abu Dhabi

Turbo Track

is a shuttle coaster with a twisted vertical spike which passes through the roof of Ferrari World Abu Dhabi.



Linnanmäki

TAIGA

the fastest LSM DOUBLE LAUNCH COASTER on the northern hemisphere respectively in Scandinavia

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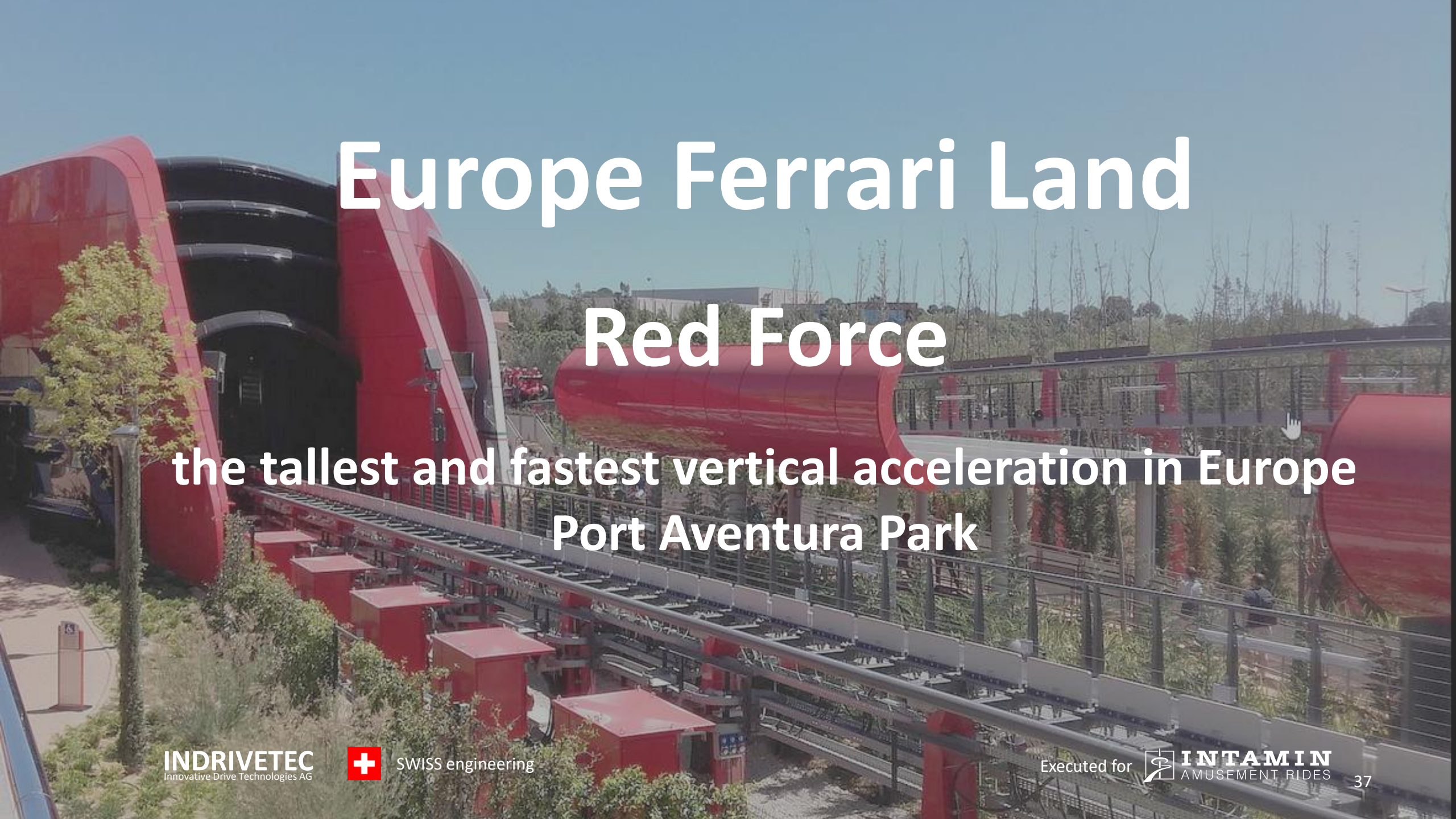
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Guangzhou Sunac Land

DUELING DRAGONS

two dragon themed trains, one suspended and one sit-down, are dueling each other with a number of thrilling near-miss elements



Europe Ferrari Land

Red Force

the tallest and fastest vertical acceleration in Europe

Port Aventura Park

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Rock Mining Mill

SER 6 MW

SER drive assures in combination with a liquid resistance the redundant and process-optimised operation

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Indrivetec is proud member of following organisations:

BVES

iBAT Association

electro suisse



Thank you for your attention!

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