Integrated solutions
for public transport

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Urban mobility as expanding market

2050
67 trillions passenger kilometres

2030
43 trillions passenger kilometres

2010
26 trillions passenger kilometres
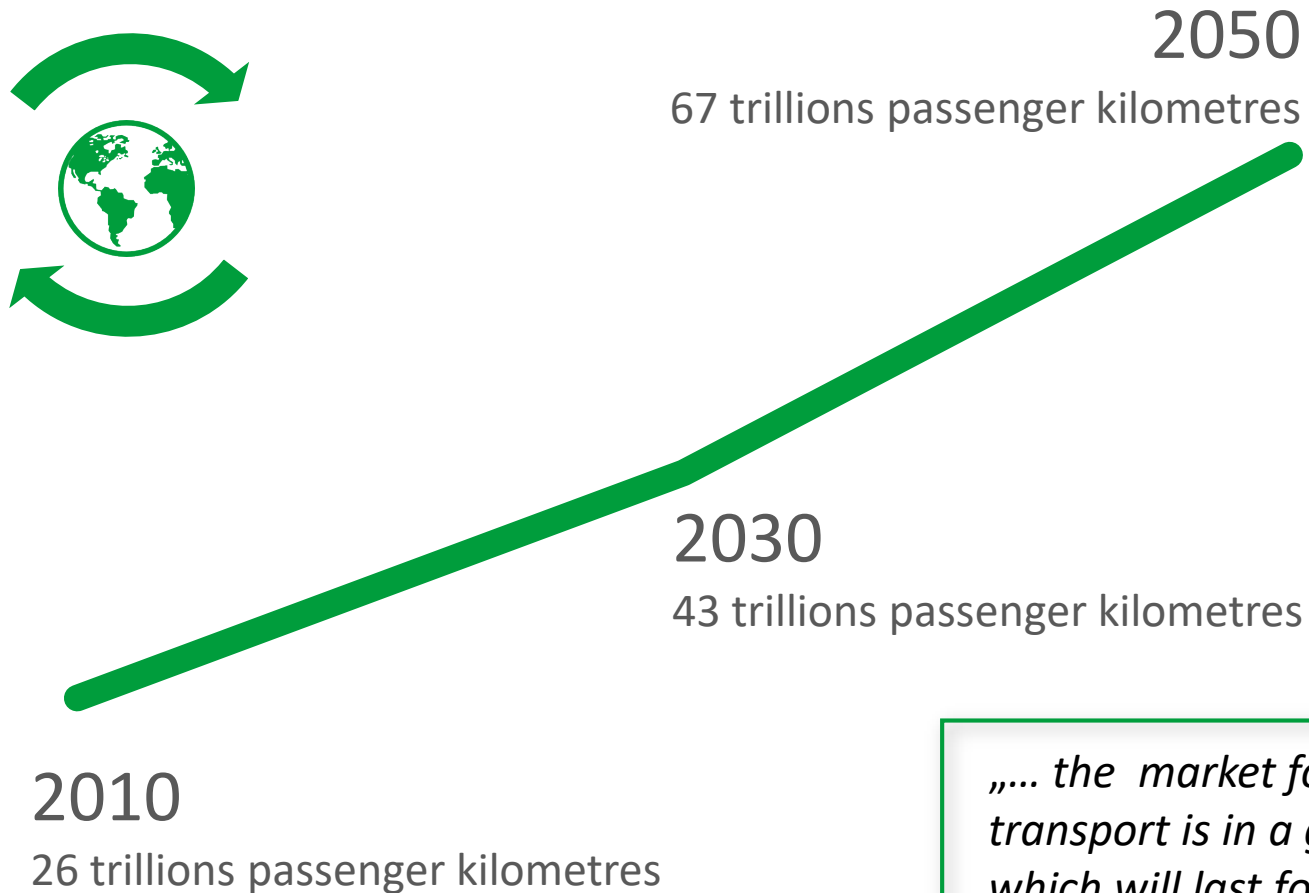
„... *the market for ITS in public transport is in a growth phase which will last for several years to come*."
Berg Insight 2018

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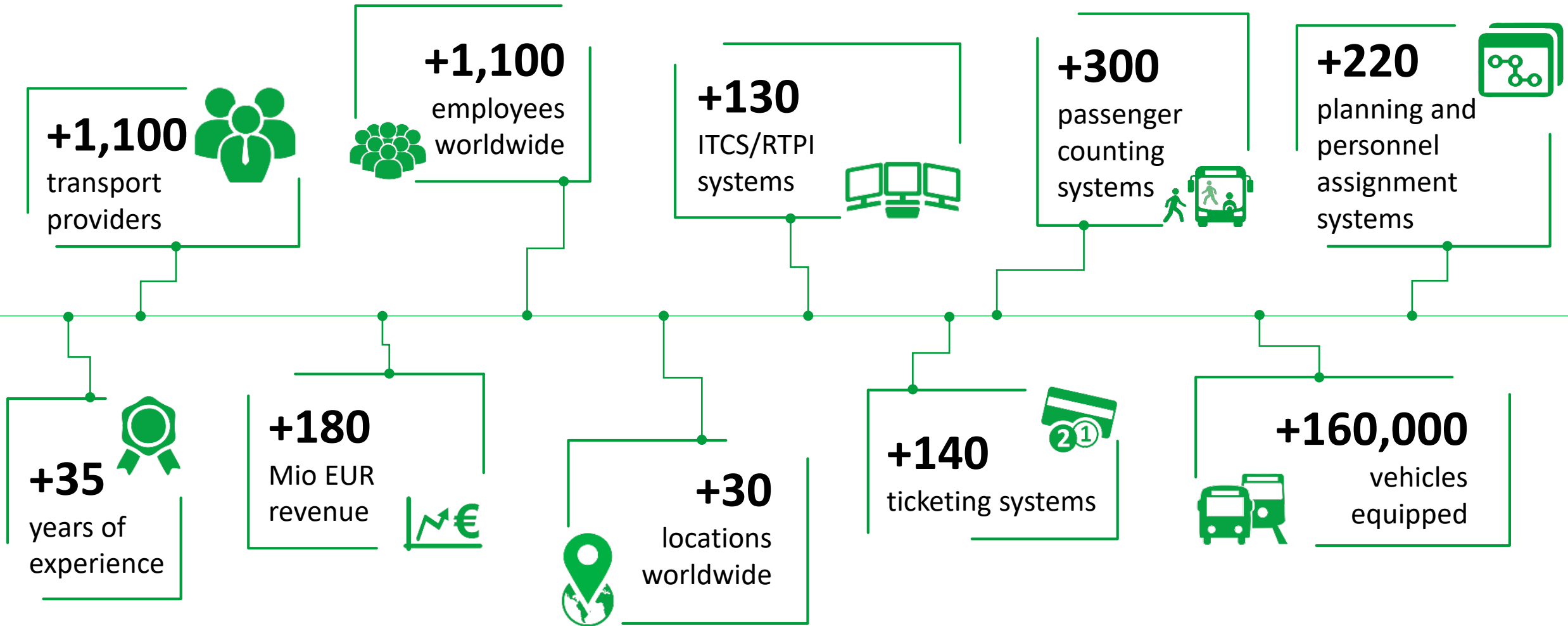
Funding programs for infrastructure including PT

US:
- Infrastructure Investment and Jobs Act IIJA (based on „The American Job plan"): **USD 1.2 trillion.**

- American Rescue Plan Act (ARP) and COVID-19 Emergency Funding to State and Local Governments: **USD 350 billion.**

GER:
- Increased funding as part of the Federal Climate Protection Program
  - **EUR 1 billion** per year, **EUR 2 billion** per year starting 2025, **plus 1.8 %** annual increase starting 2026.
  - Funding of larger infrastructural projects in municipalities **from EUR 30 million per project** (rail-bound & clean traffic).
- Funding for lighthouse projects to strengthen public transport **EUR 250 million** until 2024.

UK:
- New **bus** policy - Bus Back Better: The policy ends 30 years of commercial and competing services provided by 100s of private operators (outside London) - **GBP 5 billion** funding for walking, cycling and buses.
- New **rail** strategy - The Williams-Shapps Plan: Government ends 30 years of rail franchising and now invests directly in and services and infrastructure – **GBP 13 billion/pa.**

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init at a glance

+1,100 transport providers

+1,100 employees worldwide

+130 ITCS/RTPI systems

+300 passenger counting systems

+220 planning and personnel assignment systems

+35 years of experience

+180 Mio EUR revenue

+30 locations worldwide

+140 ticketing systems

+160,000 vehicles equipped

init group worldwide

Germany

- Hamburg
- Oldenburg
- Berlin
- Braunschweig
- Leipzig
- Karlsruhe
- Bruchsal

- Vancouver
- Seattle
- Portland
- San Diego
- Honolulu
- Montréal
- Toronto
- New York
- Chesapeake
- Atlanta
- Tampere
- Minsk
- Nottingham
- Maynooth
- Neuhausen
- Linz/Pasching
- Dubai
- Abu Dhabi
- Singapore
- Brisbane
- Melbourne
- Dunedin

● init locations

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Projects in Germany & North America

North America

Germany

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Worldwide references

Montreal/Canada
1,950 vehicles

Birmingham/UK
1,600 vehicles

Vancouver/BC/Canada
1,600 vehicles

Oslo/Norway
1,400 vehicles

Stockholm/Sweden
2,300 Vehicles

Seattle/WA/USA
1,400 vehicles

Dublin/Ireland
1,000 vehicles

Dresden/Germany
1,000 vehicles

Bavaria/Germany
3,800 vehicles

Portland/OR/USA
1,100 vehicles

Luxembourg/LU
1,500 vehicles

Dubai/UAE
1,900 vehicles

Denver/CO/USA
1,500 vehicles

Düsseldorf, Duisburg,
Essen & Mülheim/Germany
1,600 vehicles

New York City/NY/USA
2,200 vehicles

Houston/TX/USA
1,300 vehicles

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Integrated solutions for public transport

- Operation control & Real-time passenger information
- Planning & Dispatching
- Ticketing & Fare management
- Analyzing & Optimizing
- Customer support & Operations
- Electromobility
- Open mobility platforms

Integrated solutions for public transport

Operation control & Real-time passenger information

Société de transport de Montréal (since 2012): High service quality with sophisticated operations control and integrated real-time passenger information system.

- Intermodal Transport Control System MOBILE-ITCS.

- One central hub for schedule and real-time passenger information.

- Incident and workflow management.

  + 180 stop displays.

  + 2,200 vehicles.

  + 200 bus routes.

  + 1,4 million passengers per day.

© Photo STM

Integrated solutions for public transport

Planning & Dispatching

connexxion

Connexxion, Netherlands (since 2001): One system organizes the overall personnel assignment process.

- Personnel assignment system MOBILE-PERDIS from init.

- Consideration of driver requests in duty scheduling.

- Web based driver communication.

- Reports, analysis and statistics.

8-10,000 employees are managed in MOBILE-PERDIS.

€ 200,000,000 EUR annual payroll.

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Integrated solutions for public transport

Ticketing & Fare management

TriMet, Portland (since 2014): Innovative e-fare system.

- init's 1st account-based ticketing system in North America.

- Open payment and closed loop fare readers.

- Integration of student and company cards in ticketing system.

- Fully integrated fleet management, real-time passenger information and electronic fare collection system.

    + 1,100 vehicles.

    1,000,000 contactless smartcards.

Integrated solutions for public transport

Analyzing & Optimizing

Verkehrsbetriebe Karlsruhe, Germany (since the 90s): Accurate data as basis for informed management decisions.

- Integrated telematics product suite from init.

- Statistically accurate passenger counts are vital for decision-making:

  - Align the mobility offer with actual demand.

  - Enable performance-based revenue distribution,
    e.g. in multi-company transportation networks.

- Automatic passenger counting data are also the basis for providing
  passengers about occupancy levels, e.g. via apps.
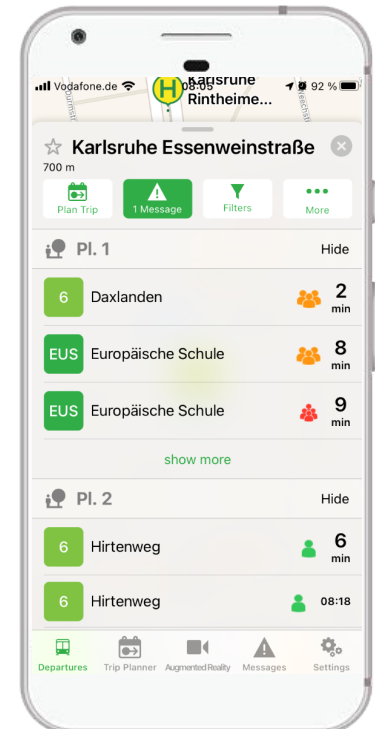 → This enables them to select a less crowded bus or train.

  + 400 vehicles.

Enhancement of the statistic system (2021):
INIT's analysis and statistics system MOBILEstatistics has been successfully certified for revenue distribution for VKB and AVG.

Integrated solutions for public transport

Customer support & Operations

Integrated Transport Centre*, Abu Dhabi (since 2011): Attractive and reliable bus services in Abu Dhabi with high-end technology from INIT.

Integrated telematics product suite from init

- ✓ Preventive & reactive maintenance.
- ✓ 24/7 hotline services.
- ✓ System checks & updates.
- ✓ Trainings.

- ✓ SLA management.
- ✓ Spare parts management.
- ✓ Third party integration.

© Wikipedia | Ranged Enigma

*Formerly known as Department of Transport (DoT) / Department of Municipal Affairs and Transport (DMAT)

- \+ 800 buses.
- 5 depots.
- 6 service technicians, 1 IT engineer, 1 system engineer, 1 SLA manager.

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Integrated solutions for public transport

Electromobility

KEOLIS
NEDERLAND
Keolis Nederland is de nieuwe naam van Syntus

Keolis, Netherlands (since 2007): One of the largest e-bus fleets in Europe in operation.

- Fleet management system from init (MOBILE-ITCS).
  → System is constantly adapted to changing requirements.

- Since 2020: Numerous modules of the init electromobility suite in use:

256 e-buses

Intermodal Transport Control System eMOBILE-ITCS

(init)

Depot management system
eMOBILE-DMS

(INIT Mobility Software Solutions)

Charge management system
MOBILEcharge

(CarMedialab)

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Integrated solutions for public transport

Open mobility platforms

Mobility platform regiomove: The innovative mobility concept.

- Smartphone app for planning, information, booking and payment.

- "Mobility-as-a-Service" from a single source.

- Regional approach.

- Next steps: Integration of further modes of transportation (Voi/Tier...).

regio move
Alles außer beamen.

© regiomove / Foto: Paul Gärtner

Together with

KVV

and other project partners.
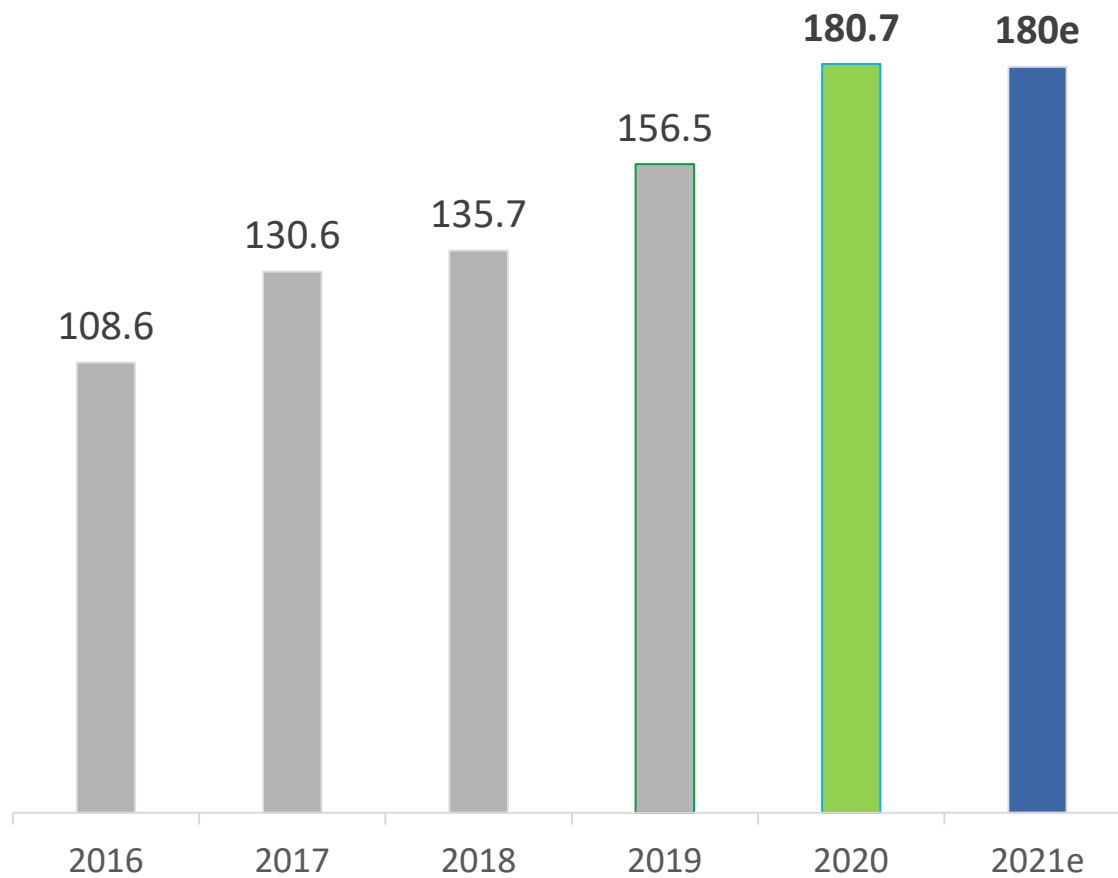
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OEM references

Recent financial figures

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Revenues

(EURm)

Growth target for FY 2020 achieved: + 15.5 %

Around 5% below previous year's level

180.7 (2020)
180e (2021e)
156.5 (2019)
135.7 (2018)
130.6 (2017)
108.6 (2016)

2016 · 2017 · 2018 · 2019 · 2020 · 2021e

130.9 (Q1-Q3 2020)
125.1 (Q1-Q3 2021)

Q1-Q3 2020 · Q1-Q3 2021

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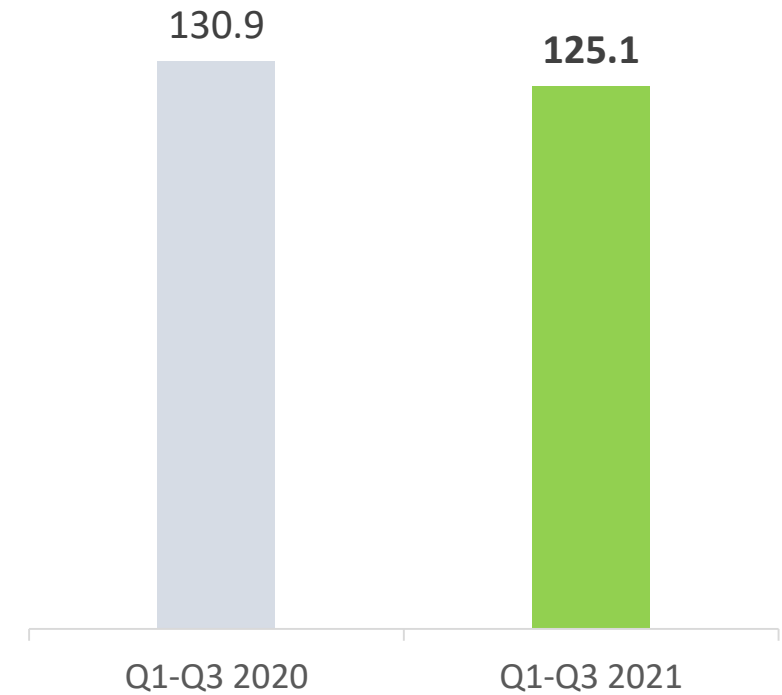
Revenues per region

Average 2015 - 2019

30%

23%

39%

8%

2020

26%

21%

42%

11%

- ■ Germany
- ■ Rest of Europe
- ■ North America
- ■ Other countries

23 November 2021

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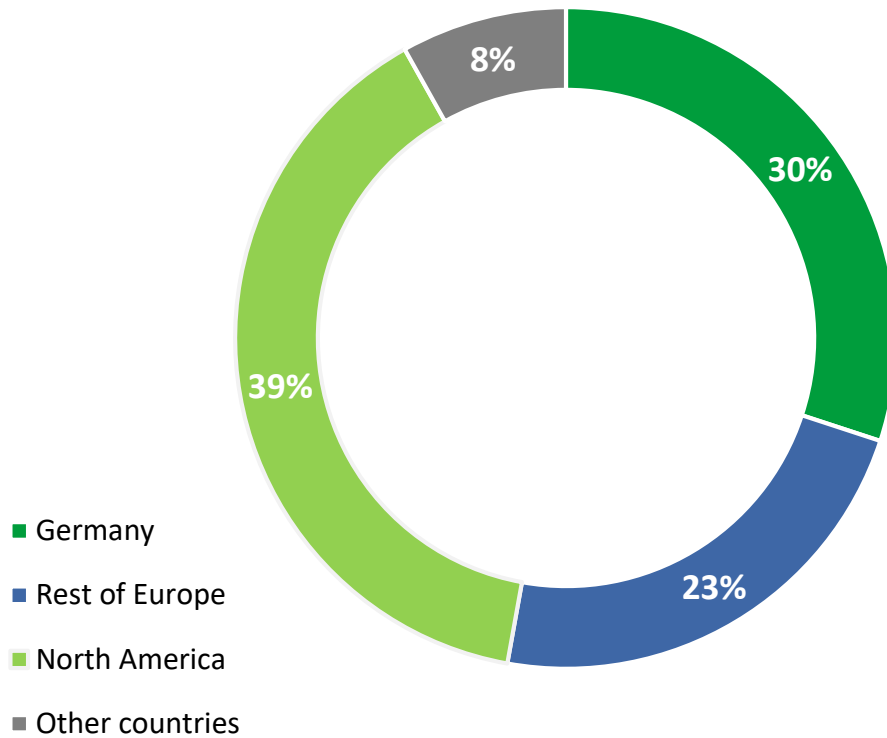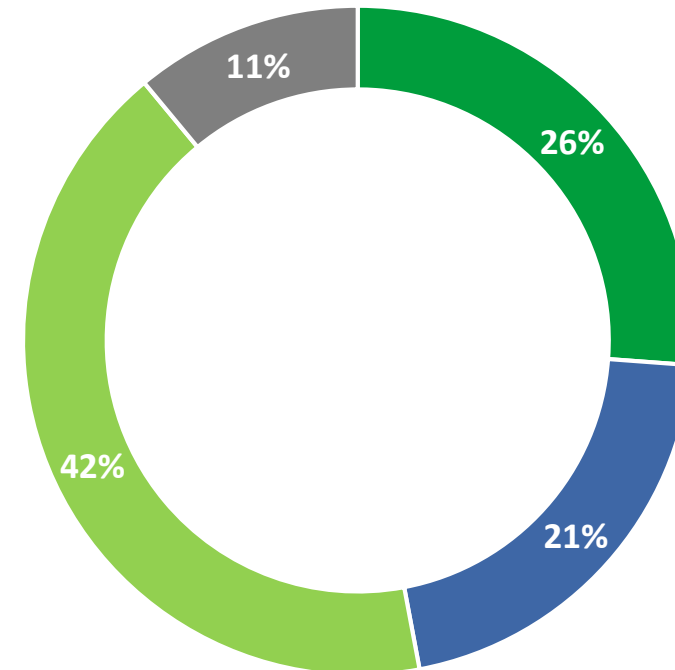
EBIT

EBIT margin further increased: around 11 %
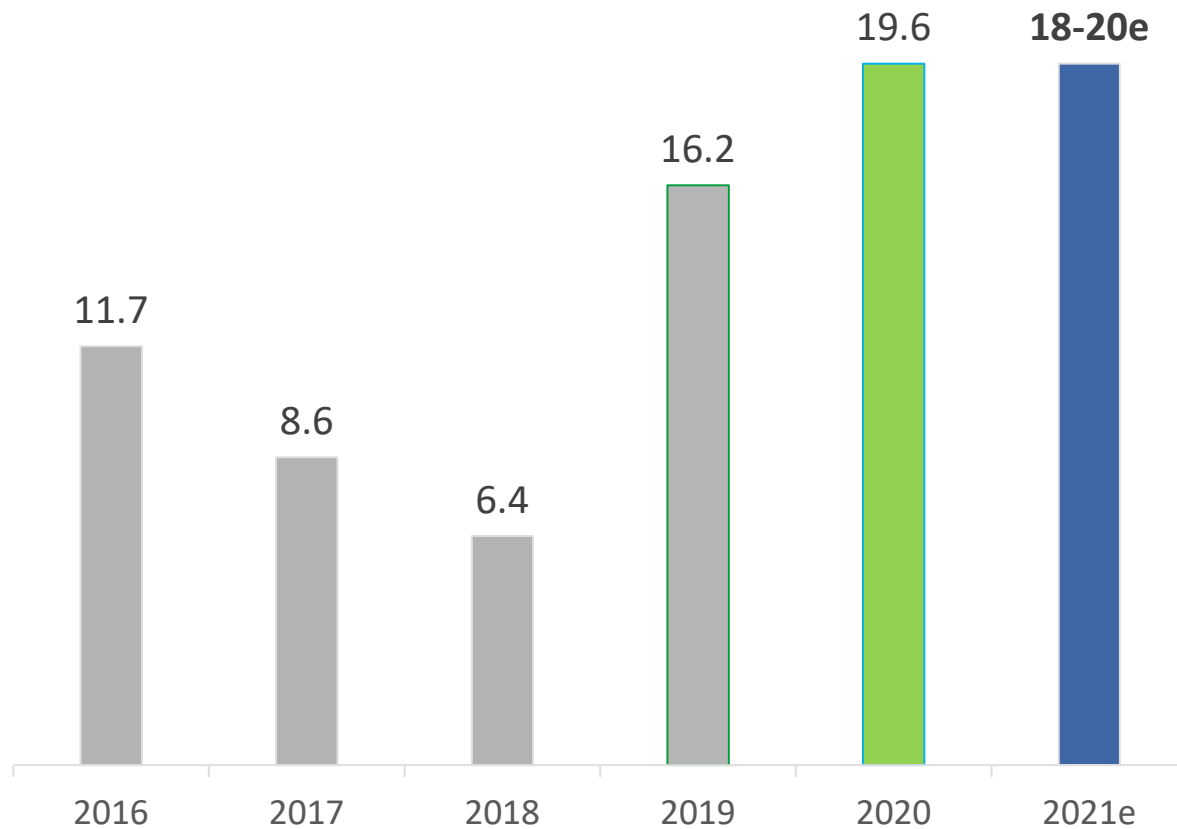
- **Revenues development**
- **Increased procurement expenses**
- **Tense labour market**

Left chart (EBIT):
- 2016: 11.7
- 2017: 8.6
- 2018: 6.4
- 2019: 16.2
- 2020: 19.6
- 2021e: **18-20e**

Right chart:
- Q1-Q3 2020: 12.4
- Q1-Q3 2021: **10.5**

Order intake

(EURm)

161.8   160.2   **154.6**

128.7   139.4

2016   2017   2018   2019   2020

Order intake + 16%:

receipt of major order METRO Houston in Q2/2021

119.2   **138.2**

as of 30/09/2020   as of 30/09/2021

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Order backlog

(EURm)

Order backlog + 3%

111	2016
117	2017
143	2018
152	2019
126	2020

139 — as of 30/09/2020
143 — as of 30/09/2021

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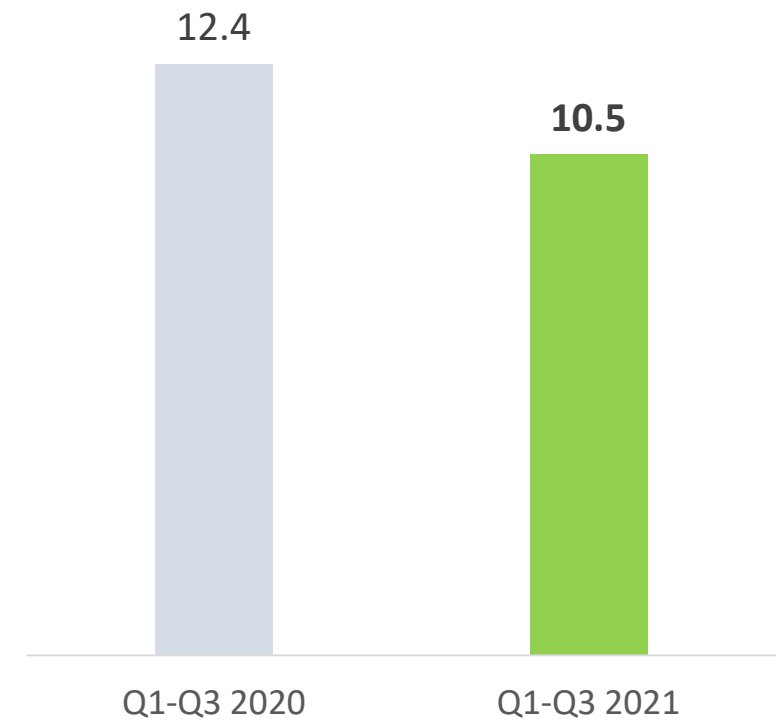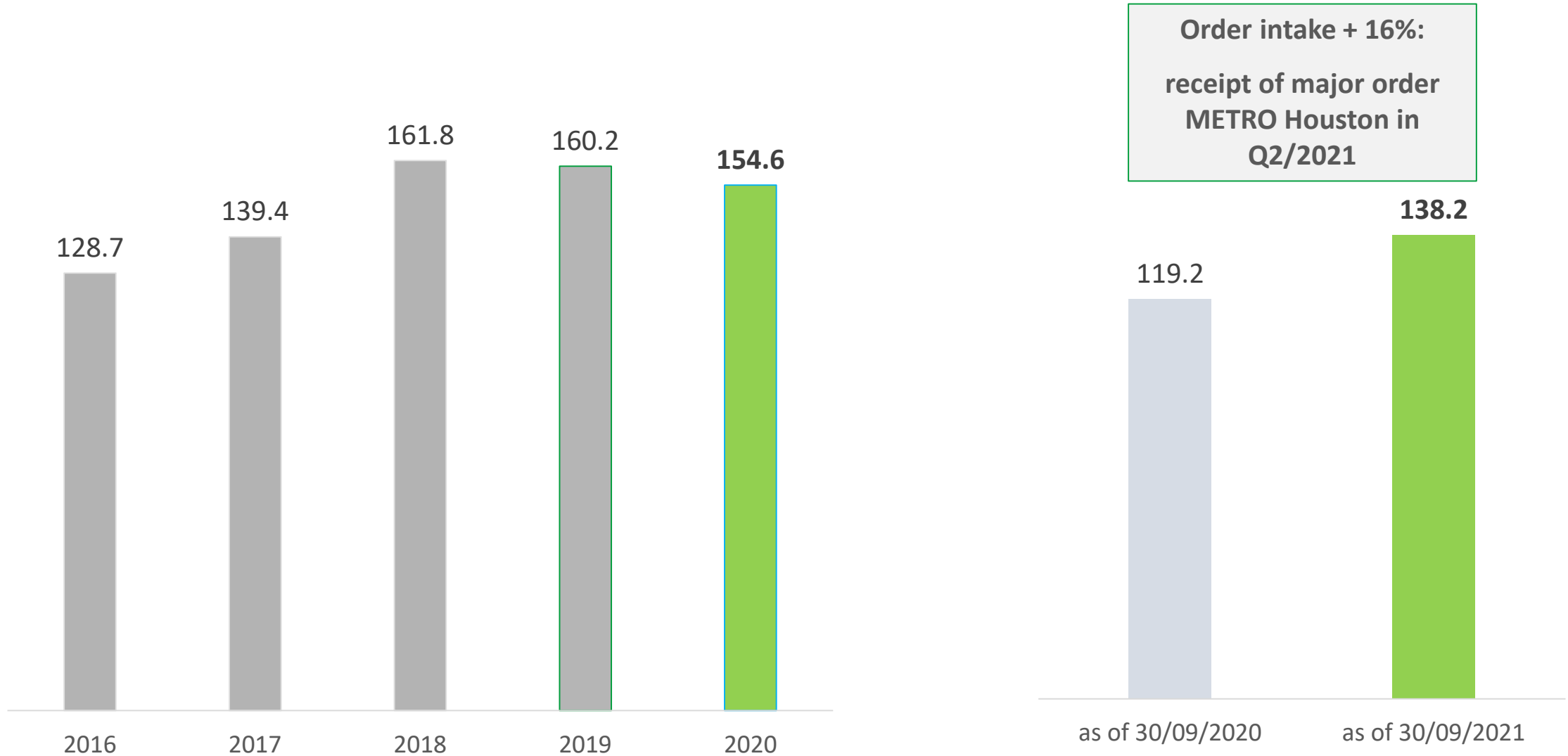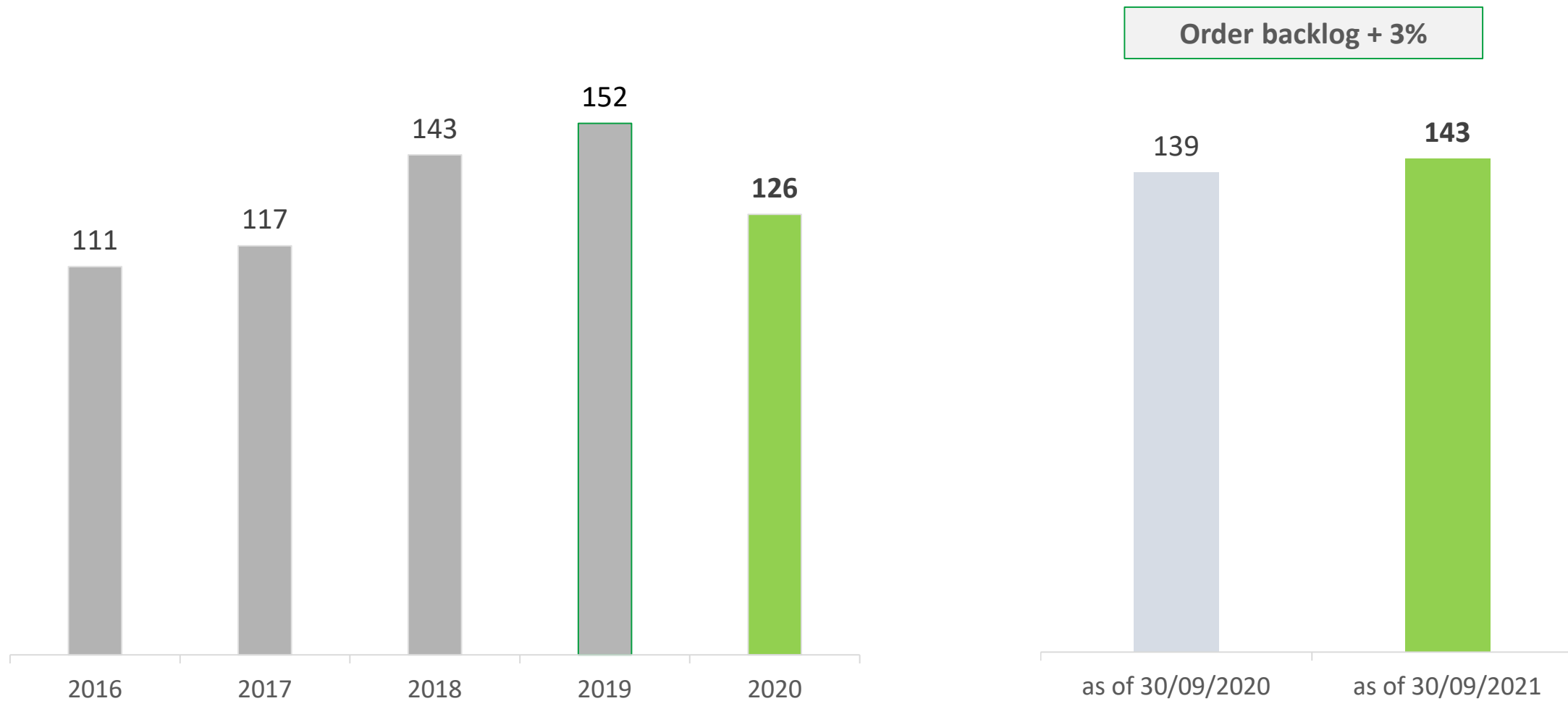
Operative cash flow

Significantly above previous year: + 16 %

- **Stronger reduction of:**
  - **Contract liabilities**
  - **Trade accounts payable**
  - **Provisions**
- **Increase in inventories**

	2016	2017	2018	2019	2020
	13.2	2.0	12.8	21.1	**24.4**

Q1-Q3 2020	Q1-Q3 2021
16.2	**6.9**

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Expenditure R&D

(EURm)

total 42.6

total 46.5

In general:

Basic development not capitalised!

6.1 % of revenues in 2020

EUR 44.8m last 5 years

New & further developments within the scope of projects

10.4

11.0

32.2

35.5

2019

2020

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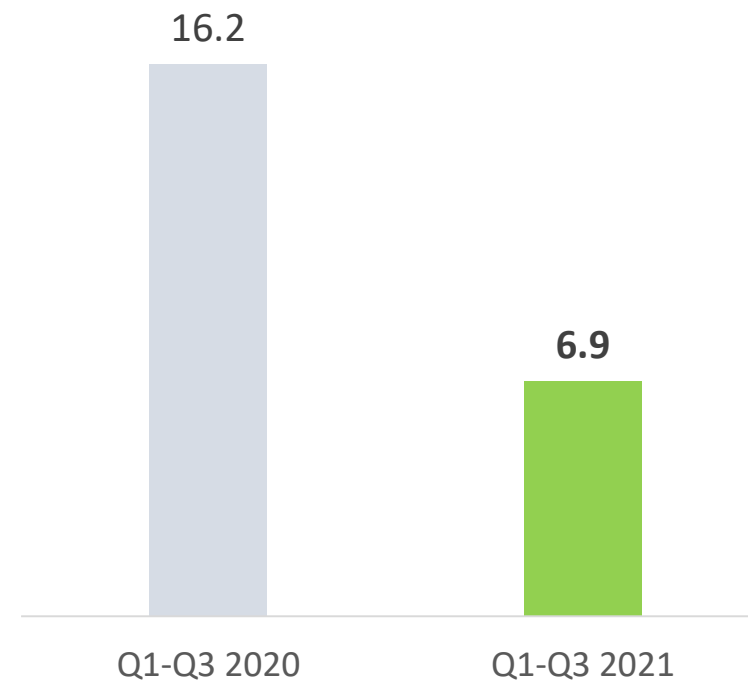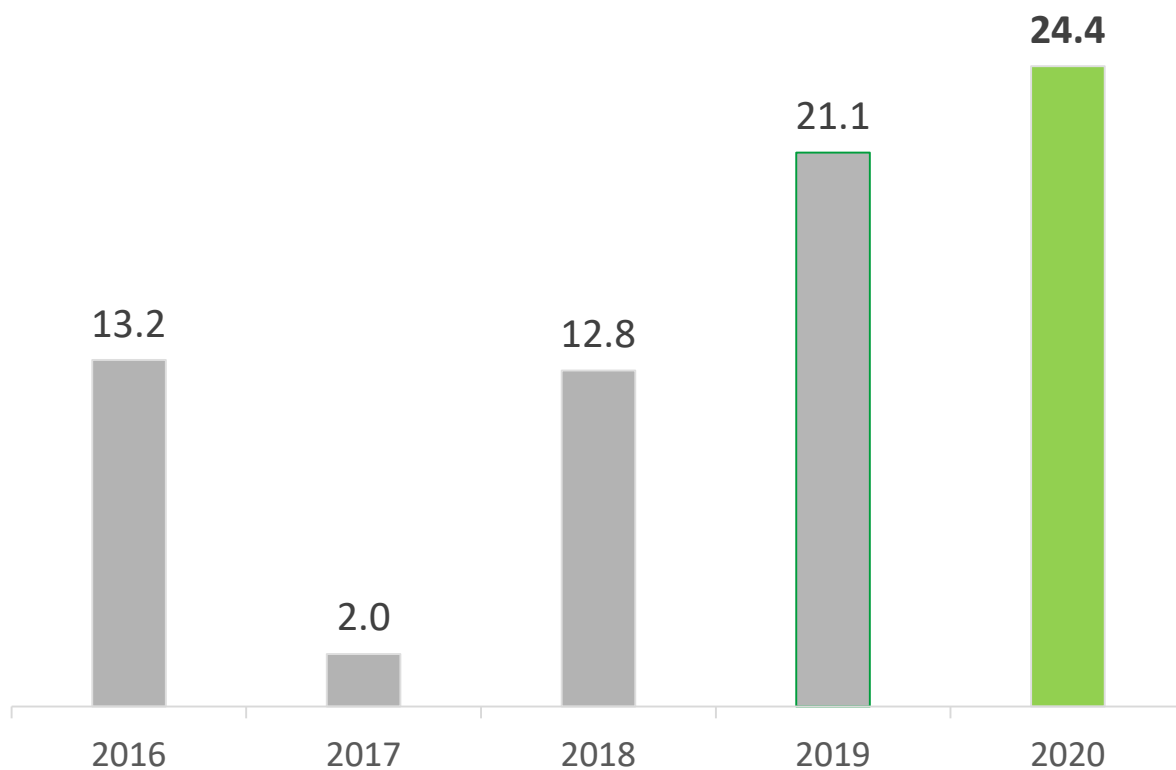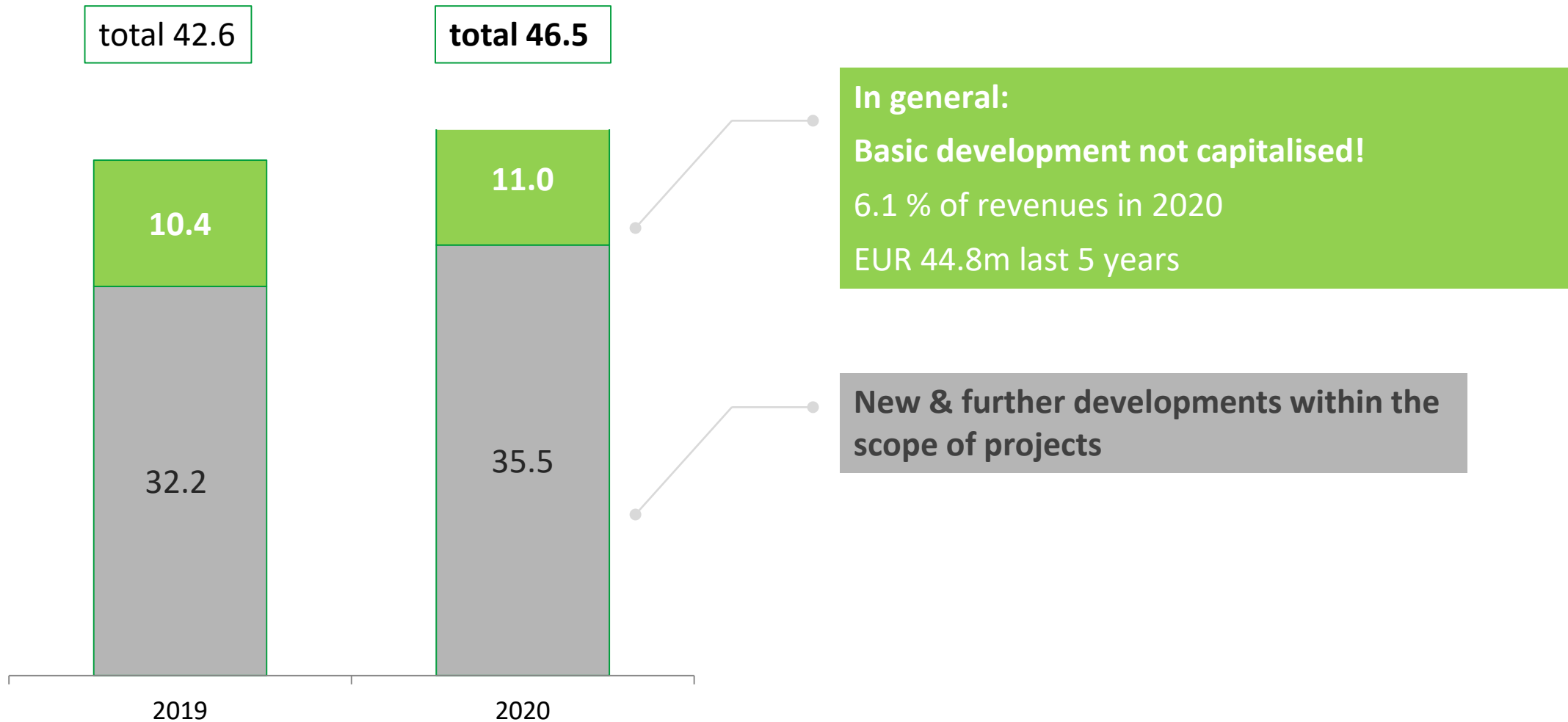
Innovation leadership through research projects

Completed projects

(since 2014)

iQMobility (4 yrs.)
Autonomously driven BRT

2020

U-THREAT (3 yrs.)
Automation of planning processes

EBSF 2 (3 yrs.)
Interoperability using standards

2018

2019

MAVIS (2.5 yrs.)
Mobility assistance for disabled people

INK2016 (1.5 yrs.)
Participation of blind people in PT

MENDEL (3.5 yrs.)
INIT suite prepared for e-mobility

DiMo-OMP (1.5 yrs.)
Reference architecture for open mobility platform

InREAKT (3 yrs.)
Privacy by Design

2016

DiMo-FuH (1.5 yrs.)
Broker architecture for OTA interface, MQTT

aim4it (3.5 yrs.)
Interaction with PT for disabled people

2015

3iBS (2.5 yrs.)
Deployment guidelines for IT architectures

2013

IP-KOM-ÖV (3.5 yrs.)
Modularization of IT architectures IBIS-IP

2014

EBSF (4,5 yrs.)
On-board SOA architecture

The data listed is project data.
SOA = Service-oriented architecture.

Research project aim4it and MAVIS 2017 – 2019

Target: Barrier-free access for passengers with special mobility needs

- Easy use for
  - ➤ Mobility-impaired.
  - ➤ Visually-impaired.
  - ➤ Hearing-impaired.

- Individual planning.

- Individual travel support, e.g. interior and exterior vehicle announcements and information to the bus driver.

Result: MAVIS App and init product ASSISTIVEtravel.

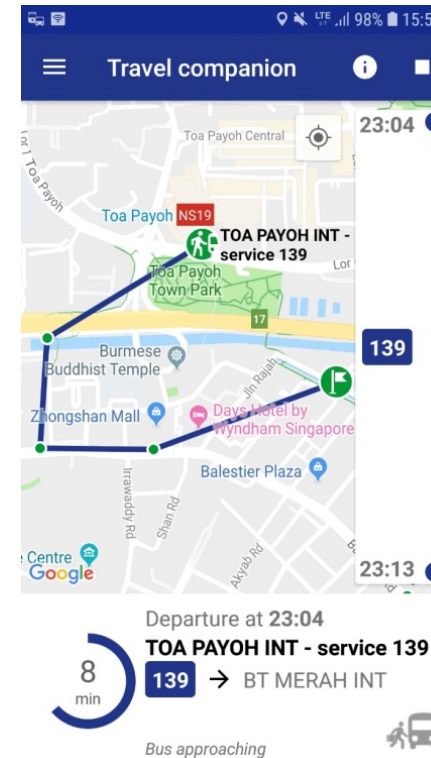# Research implementation barrier-free access

MAVIS APP awarded twice

- **UITP Innovation Award**
  Category: *Diversity & Inclusion.*

- **Asia Pacific**
  Special Recognition Award.

ASSISTIVEtravel in use in Singapore

Land Transport Authority of Singapore (LTA) - lighthouse project.

Legal requirement in Germany

From 2022, accessibility in public transport will be a legal requirement.

Research project MENDEL Jan 2016 – Jun 2019

Target: Cost-efficient charging infrastructures for electro-mobility

- Consideration of vehicle driving ranges in planning and operation.

- Iterative optimization of electric bus circulations and charging infrastructure.

- Integration of ITCS and charging management.

- Centralized public transport management taking charging status into account.

Result: init product suite eMobile.

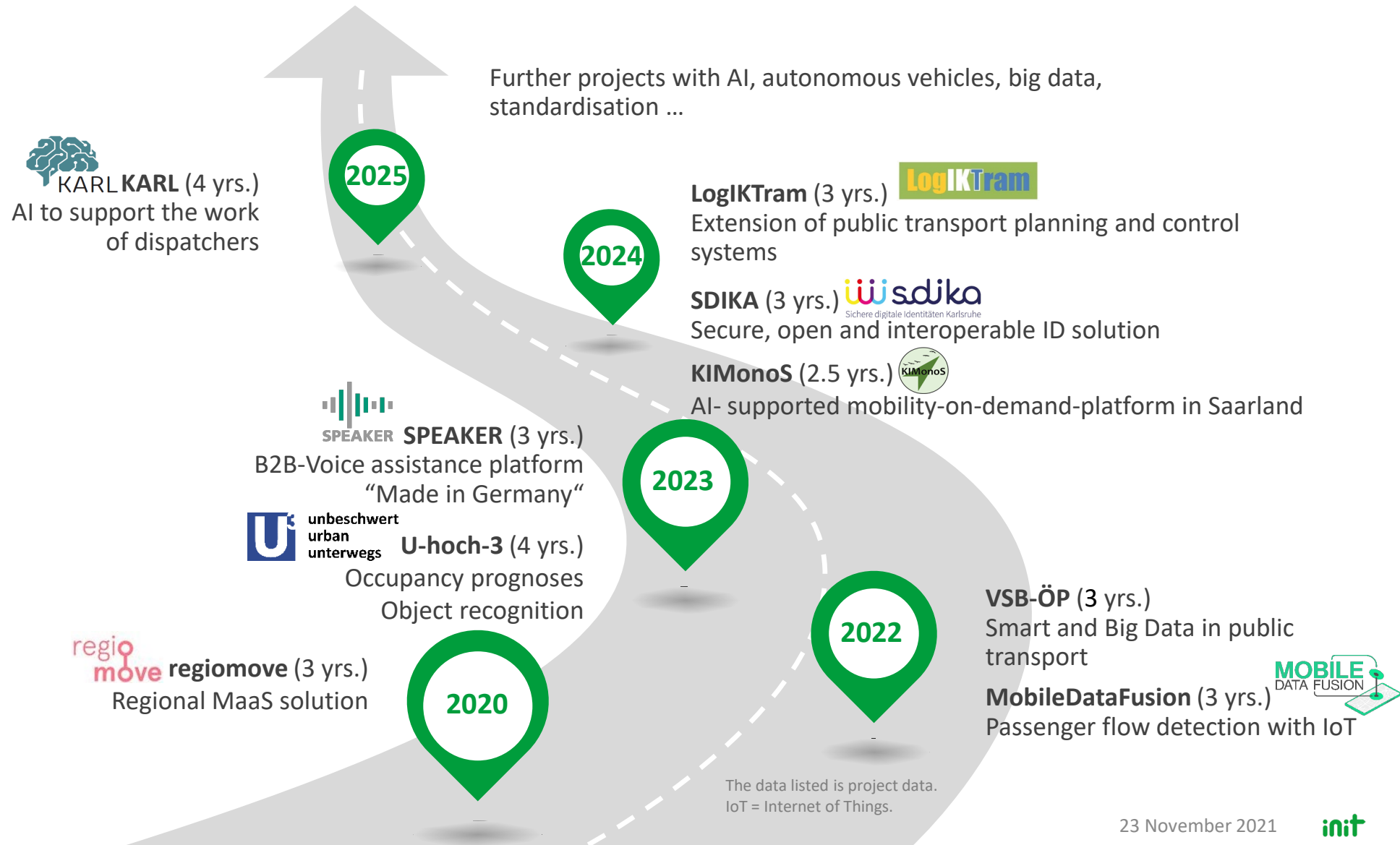# Research implementation electromobility

- Integrated product suite eMOBILE optimises planning and operation.

- Total revenue meanwhile about EUR about 5 million.

- Number of electric buses growing rapidly worldwide.

- First international successes.

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Research roadmap

Current projects

Further projects with AI, autonomous vehicles, big data, standardisation …

KARL KARL (4 yrs.)
AI to support the work of dispatchers

2025

2024

LogIKTram (3 yrs.)
Extension of public transport planning and control systems

SDIKA (3 yrs.)
Secure, open and interoperable ID solution

KIMonoS (2.5 yrs.)
AI- supported mobility-on-demand-platform in Saarland

SPEAKER **SPEAKER** (3 yrs.)
B2B-Voice assistance platform "Made in Germany"

U-hoch-3 (4 yrs.)
Occupancy prognoses
Object recognition

2023

VSB-ÖP (3 yrs.)
Smart and Big Data in public transport

2022

regiomove (3 yrs.)
Regional MaaS solution

MobileDataFusion (3 yrs.)
Passenger flow detection with IoT

2020

The data listed is project data.
IoT = Internet of Things.

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# Growth areas

Important activities:

- Large scale **ID- and Account based ticketing** systems (similar to METRO/Houston).

- New product: **Next Generation** fleet management (ITCS nextGEN), planning and dispatching systems.

- New product: Fleet management for **Rail Systems** (ITCSrail).

- New product: Support **E-mobility** for public transport in all aspects of service: Planning, operations, charging, depot management etc.

- New product: Real-time **Automatic Passenger Counting** and passenger guidance systems (MOBILEguide).

- New product: **MaaS** platform for planning, real-time information and ticketing for multi- and intermodal services (public transport, car and bike rental, scooters etc.).

- On the horizon: **Autonomous driving** in public transportation.

Roadmap strategy

✓ **Existing revenue and EBIT target for 2021 achievable.**

✓ **Depending on further developments in the procurement and labour market.**
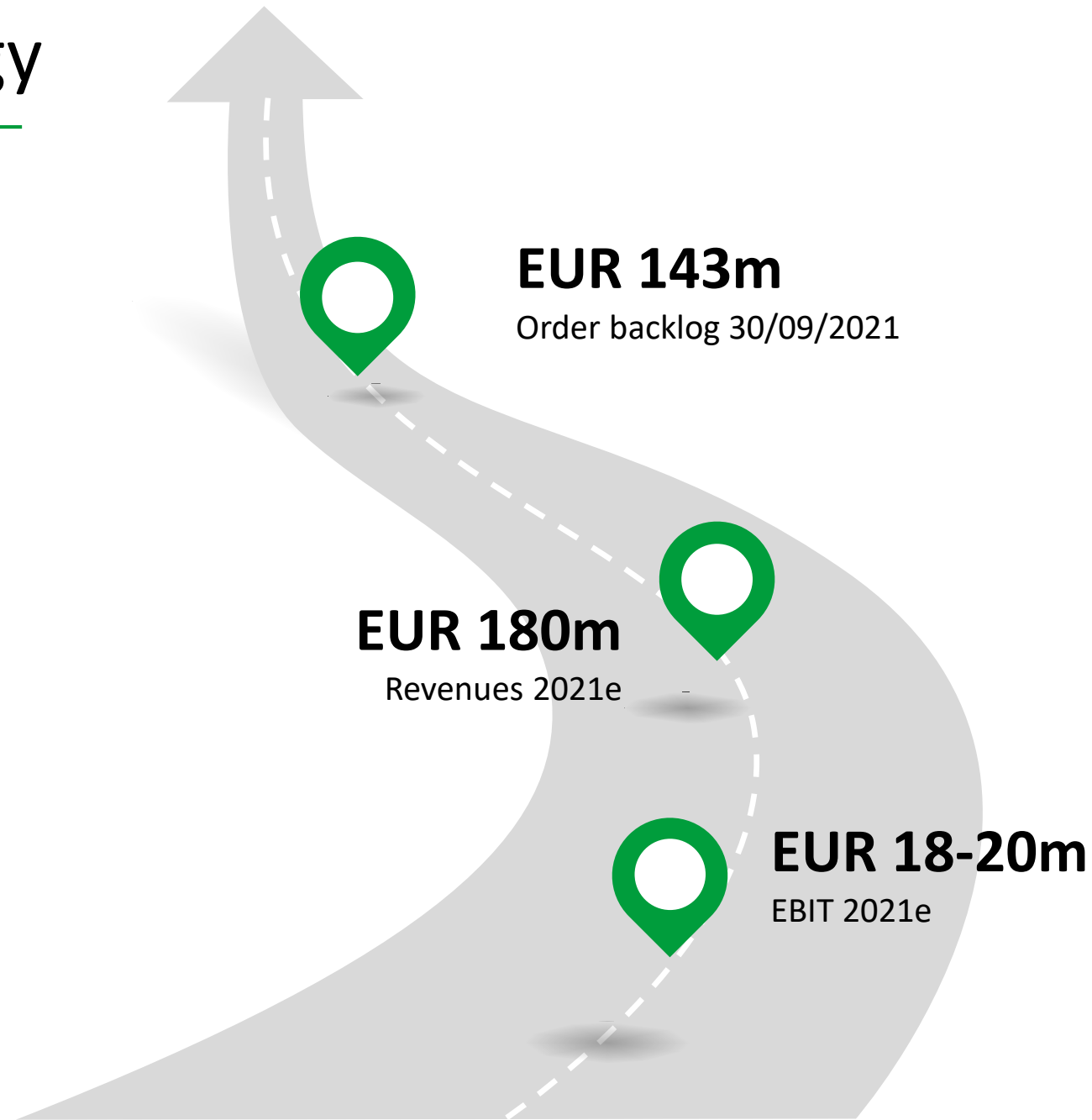
EUR 143m
Order backlog 30/09/2021

EUR 180m
Revenues 2021e

EUR 18-20m
EBIT 2021e

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Thank you for your interest.

Financial Calendar 2022

24 March 2022
Annual Report Financial Year 2021

12 May 2022
Quarterly Statement Q1 2022

18 May 2022
Annual General Meeting 2022

10 August 2022
Half-Year Financial Report 2022

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