



P & N Consult AB

Company Presentation

Market Intelligence
Advice, Strategy
Project Management

Business Development
Innovation
Approval Processes

E-Mobility
Alternative Fuels
Energy Saving

Road
Rail
Ferry

P&N Consult

Public Transport and New Energies

Overview

International Consultancy Services in Public Transport



Management



MD
Werner Nüchterlein
Dipl.-Volkswirt (M.Sc. E.)



Senior Consultant
Sabina Nüchterlein
Electrical Engineer

Cooperation partners



Gerrit van der Linden
Amsterdam (Netherlands)



Axel Kühn
Karlsruhe (Germany)



George Karbowski
Las Vegas (USA)



Philip Clarke
Stockholm (Sweden)



Terry Scott
Melbourne (Australia)



Axel von Zündt
Lisbon (Portugal)



KNRBB
**International Rail
Competence Network
Brandenburg (Germany)**



Clients



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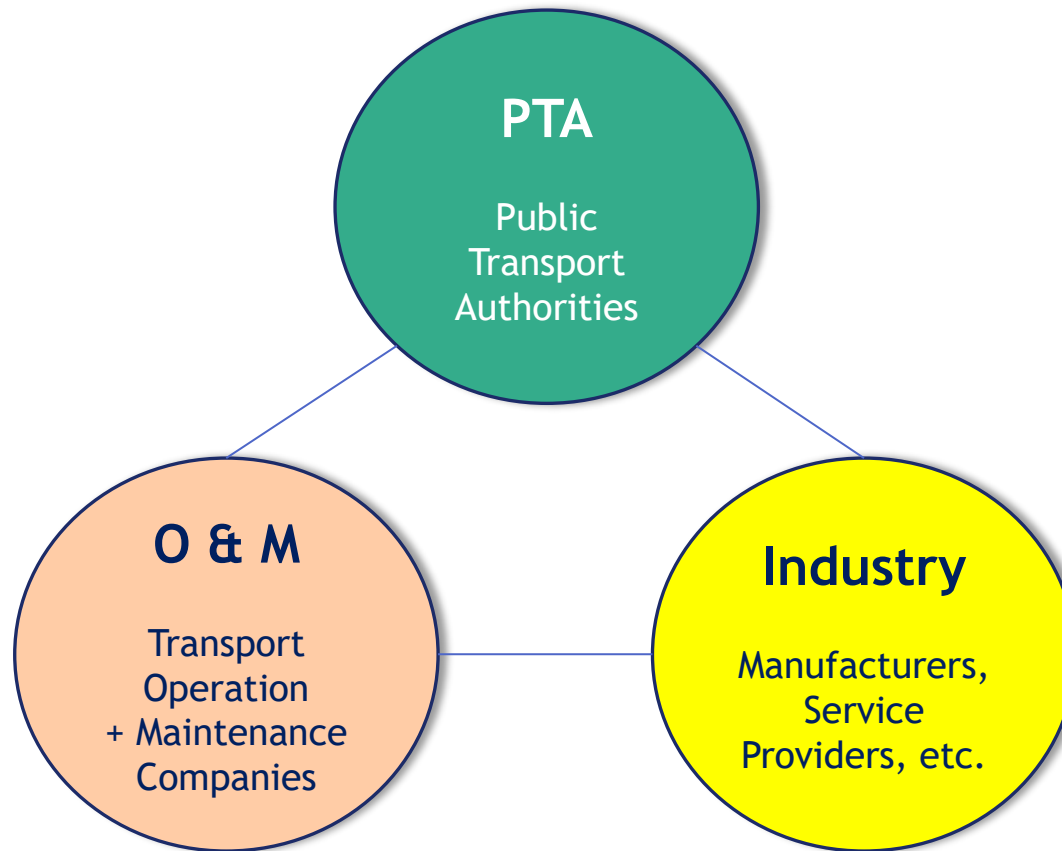
Public Transport and New Energies

Services

- Competent
- Innovative
- Tailor made
- Discrete
- International network of
- Independent consultants
- Experience from leading positions in transport

Services

Clients



Services

Clients needs

- Business Improvement
- Business Development
- Innovations



We provide

- Project Management
- Market Intelligence
- Market Studies
- Study Tours
- Investigations
- Forecast
- Advice
- Strategy

Services

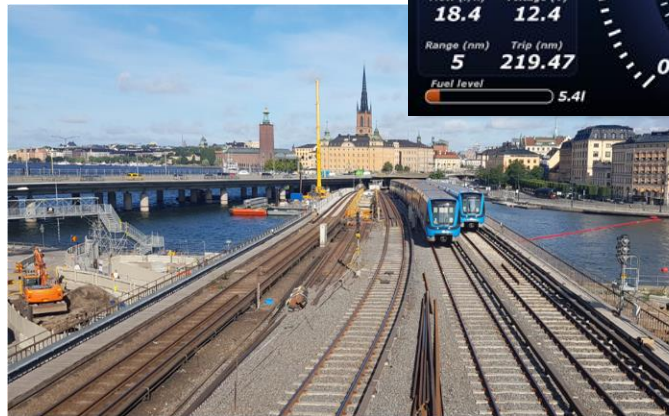
- Bus, BRT
- Train (Passenger, Cargo)
- Tram, LRT, Metro
- Ferry



Services

Special focus on

- Energy saving
- Alternative Fuels
- E-mobility
- Approval process (rail)



References

- E-bus and e-powertrain market study for VTT (Technical Research Institute of Finland)
- Market intelligence for SMA (Switzerland) specialized in capacity simulation and railway system planning
- Market intelligence for an industrial client in the telematics business (*client wishes to remain anonymous*)
- Market potential preliminary analysis for next generation of energy efficient ferries for SP (Technical Research Institute of Sweden)
- Product commercialization strategy for EkaBus (Finland) eBus developer and integrator
- Market study for Fortum Corporation (Finland)

References

- Project Management: “Standardization” of the Nordic capital PTAs’ bus fleet procurement demands - for SL (today SLL TF - Stockholm PTA) - leader of the international project
- BRT documentary study for Trondheim (Norway) together with A. Kühn Consult
- Market study for VTT (Technical Research Institute of Finland)
- Study Tour to new “MalmöExpressen” BRT System, for Trondheim region
- Approval process for signalling rebuild for “Pendeltåg” commuter rail depot in Stockholm - on behalf of SLL TF (Stockholm PTA)
- Workshop on “Smart Sustainable Cities” in Bergen (Norway) together with Prof. Nylund (VTT) - for Norwegian Road & Traffic Association

References

- Feasibility study for implementing an eBus fleet in Malmö (Sweden) - expert consultant to Skånetrafiken PTA
- Study tour on “plug-in hybrid and pure electric buses in Gothenburg” for Skånetrafiken and Malmö city
- Market study on public transport in the Nordics for a public transport operator
- Business development consultancy for a public transport operator
- Implementation study for an eBus fleet in Helsingborg (Sweden) - expert consultant to Sweco on behalf of Skånetrafiken PTA
- Market Investigation for a public transport operator
- Study for the introduction of an Enhanced Public Transport System in Regensburg (Germany) together with Komobile (Austria)

References

- Preliminary study on hybrid buses (HEV and PHEV) - expert consultant to Sweco on behalf of Hallandstrafiken PTA
- TCO model and market study (Netherlands and USA) on biofuels for an industrial client, together with Gerrit van der Linden and George Karbowski
- Approval process for reconstruction of “Söderströmsbron” metro bridge - BES in Stockholm - on behalf of SLL TF (Stockholm PTA)
- Project: transition to electric bus traffic in Stockholm - support as strategic consultant for SLL TF (Stockholm PTA)
- Inspection coordinator - reconstruction of metro bridge in Stockholm - on behalf of SLL TF (Stockholm PTA)

References

- Consultancy for SLL PTA on bus climate requirements within the "BusNordic" standardization project for the Nordic countries
- Feasibility study for implementing eBuses on all city bus lines in Malmö (Sweden) - together with Sweco, on behalf of Skånetrafiken PTA
- Market research for IME (electric engineering company in Berlin)
- Market research for AMTAB (Swedish company providing advanced measurement technologies for railways)
- Approval process for metro signalling system - Slussen multi-modal interchange and development project in Stockholm
- Market research for ALOM (Dutch rail infrastructure component supplier and engineering company)

References

- Tendering of electric bus services - expert consultant to Sweco on behalf of JLT (PTA in Jönköping)
- Market analysis and market development in the Nordics/internationally for KNRBB (railway competence network)
- Consultancy services for CPC Tracking (Danish railway safety and transport solution company)
- Market research for ARTEX (Swedish company specialized in the modernization of seats for public transport)
- Adviser to SLL TF (Stockholm PTA) in the UITP working group “eSORT - Thermal Comfort” for electric buses
- Consultancy services for IME (electric engineering company in Berlin) in the Nordic countries

References

- Study on Autonomous Operation of Tramways for Trøndelag Fylkeskommune (PTA Trondheim region - Norway) - together with Axel Kühn
- Advisor to Skånetrafiken (PTA) on battery issues for buses with electric drivelines
- Training for a Nordics PTA on the implications of New Energy issues in Public Transport
- “2nd hand bus market in Europe” - subcontractor to UITP for this study, funded by European Investment Bank (EIB)
- Market analysis for KIEL-Seating in the Nordics
- Advisor to SLL TF (Stockholm PTA) and coordinator in the UITP working group “Passenger Thermal Comfort measurements in buses”

Clients

Skånetrafiken



SØR-TRØNDELAG
FYLKESKOMMUNE



HELSINGBORG



Trøndelag fylkeskommune
Trööndelagen fylhKentjietle



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Cooperation Partners

- **Network** of independent consultants world-wide with together
- More than 200 years of **experience** in transport
- **Successful** and **trustworthy** cooperation over many years
- Covering **wide range** of competencies
- **Back-up** for larger projects



Cooperation Partners (I)



Transport Consultancy
Gerrit van der Linden
Amsterdam (Netherlands)

Railway

LRT
Metro



Transit Technical Consulting
George Karbowski
Las Vegas (USA)

Bus

E-Bus



Public Transport Expert
Axel Kühn
Karlsruhe (Germany)

LRT
Metro

Bus

Railway



Public Transport Expert
Philip Clarke
Stockholm (Sweden)

Passenger
Forecast

Service
Design

Market
Analysis

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Cooperation Partners (II)



Public Transport Expert
Terry Scott
Melbourne (Australia)

Railway

LRT
Metro

Bus



Bus Market Expert
Axel von Zündt
Lisbon (Portugal)

Bus

E-Bus



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Contact

P&N Consult AB

Office : **Stockholm Region**
Klövergränd 98
SE - 642 92 FLEN

Office: **Göteborg/Oslo Region**
Valhallavägen 49
SE - 451 52 UDDEVALLA

+46 8 51 51 22 62
info@pn-consult.com
www.pn-consult.com

