

Boosting Efficiency Through **Logistics Digitalization** – Real Benefits

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CTO, co-founder

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Who are we?

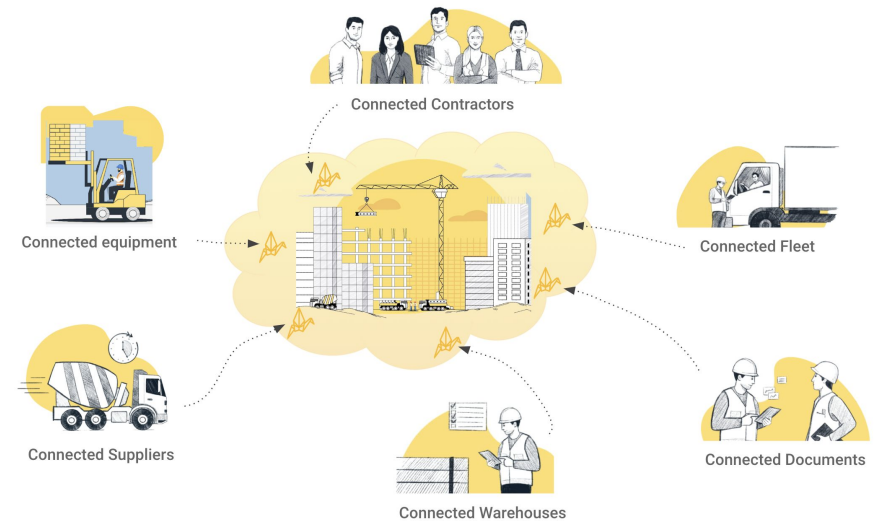
At ProperGate, we understand the challenges that logistics in construction projects can present.

Since 2018 our team leverages digital technology **to establish integrated logistics management standards for construction projects:**

- to streamline and **standardize material delivery management** across the construction industry, enhancing operational efficiency on building sites and during distribution from production facilities.
- to empower project owners **with greater control while reducing the environmental impact**, risks of delays and budget overruns.

Our mission is to tackle the industry's **key challenges, including delays, waste, supply chain disruptions, and miscommunication**, which which drive costly downtime and unplanned expenses.

By delivering a **single, integrated source of truth**, we enable a collaborative environment grounded in transparent communication, trust, and a shared commitment to flawless, sustainable project delivery that **aligns with ESG goals**.



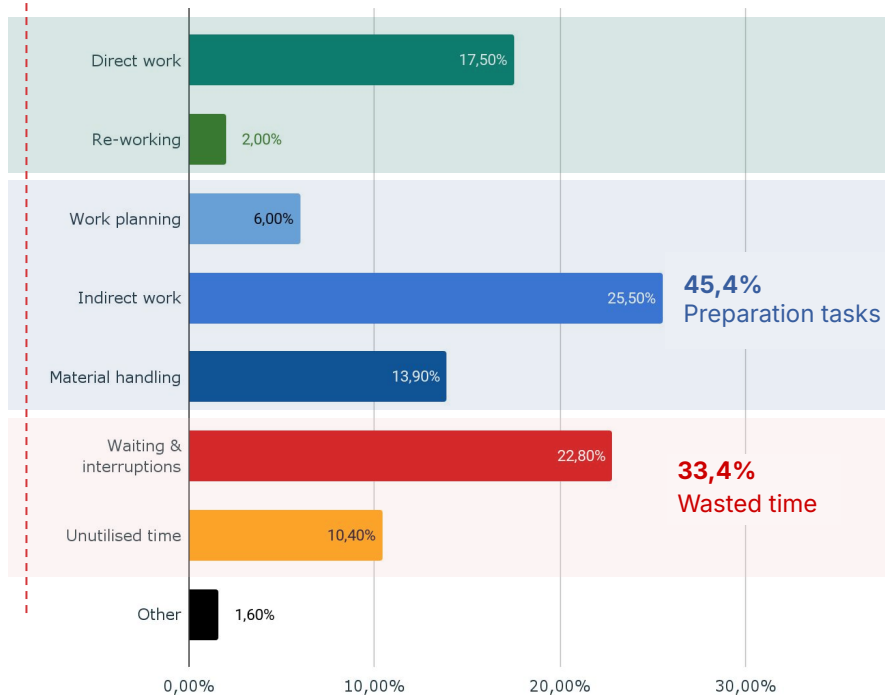
**To reach circularity,
the flows of materials shall be:**

- **narrowed** (use less)
- **slowed** (use longer)
- **closed** (use again)



Inefficient time management by site personnel impacts project timelines and productivity

USE OF WORK TIME AMONG CONSTRUCTION WORKERS



HOW PROPERGATE CAN HELP

- 1. Increase the efficiency of direct work**
Improved scheduling and delivery management ensures that materials are available when needed, reducing downtime
- 2. Reduce indirect work time**
Automating delivery bookings frees up more time for productive activities
- 3. Shorten material handling time**
Optimized material logistics & tracking technologies streamline material handling
- 4. Minimize waiting and interruptions**
Scheduling and real-time delivery tracking systems help anticipate & avoid delays
- 5. Cut down unutilized time**
Integrated logistics eliminates unproductive tasks, improving workflow efficiency

Why companies optimise logistics in their projects?

1. FINANCIAL PAYBACKS

- **Lower costs**
as a result of optimal material orders
- **Lower / No downtime**
as a result of planned logistics and increased safety
- **Faster execution**
as a result of planned logistics that reduces delays

2. LABOR EFFICIENCY

- **20-30% more work time**
as a result of materials on time, no waiting for materials
- **Effective team planning**
as a result of scheduled deliveries
- **Reduced manual unloading**
as a result of available unloading equipment

3. SAFETY ON SITE

- **Fewer collisions on site**
as a result of fewer vehicles on site and driver instructions
- **Fewer unloading accidents**
as a result of approved equipment and safe place to park
- **Fewer material damages**
as a result of using approved material storage zones

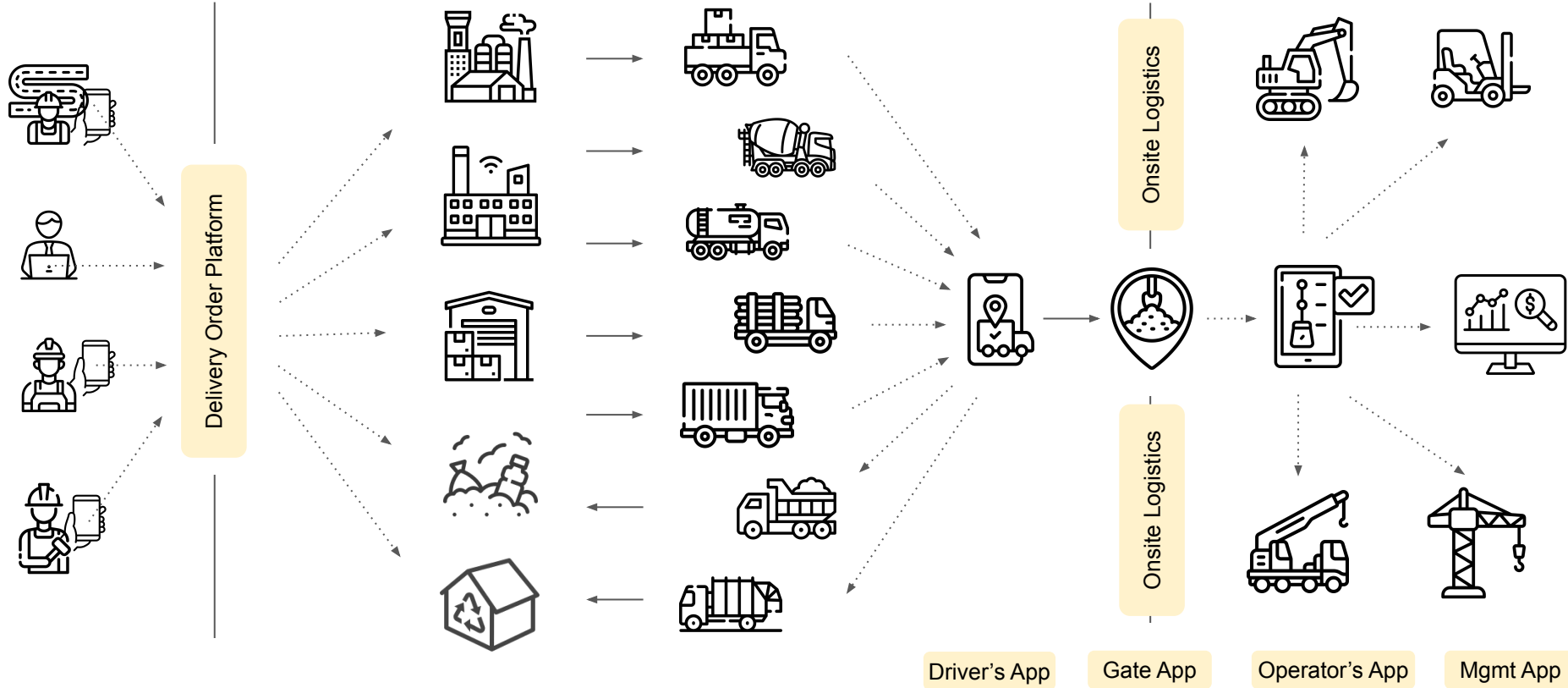
4. ENVIRONMENTAL BENEFITS

- **Reduced CO2 emissions**
as a result of fewer trips and no waiting at gate
- **Less waste**
as a result of controlled flow of materials and storage
- **Support waste management**
as a result of tracking of transported fractions

5. All the above

- **Meet Investor's requirement**
as a result of controlled traffic and flow of materials

Unified Platform for coordinating and tracking material transport & unloading



ProperGate Connected Supply Chain Ecosystem



Connected Contractors

- real-time status of prefab to order
- prefab assembly plan & order
- scheduled deliveries
- delivered materials
- linked ERP, BIM & BOM

- shipment instructions
- navi to unloading zone
- delivery confirmation
- fast gate / self check-in
- transport orders
- order tracking
- location tracking
- internal transfer



Connected Carriers



Connected equipment

- auto booking for prefab
- progress tracking
- allocation for tasks
- allocation for deliveries
- AI time estimations
- AI recommended methods



Connected Suppliers

Prefabs, Concrete Mix, Aggregates, Steel, Facade, Formwork, Scaffolding,

- processing prefab orders
- planning prefab shipment
- delivery tickets
- delivery tracking
- customer order portal
- transport unit labels

- redirecting traffic to CCC
- fast JiT deliveries
- transfer CCC - Site
- RFID QR code tagging
- reverse logistics



Connected Warehouses



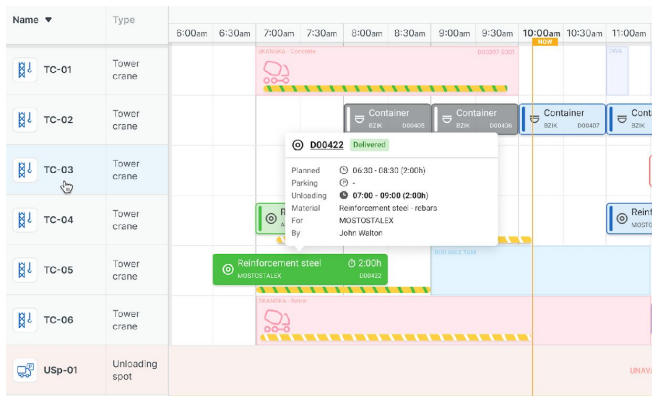
Connected Documents

- e-orders
- e-deliveryTicket
- e-invoices
- e-claims

What areas can be automated with ProperGate

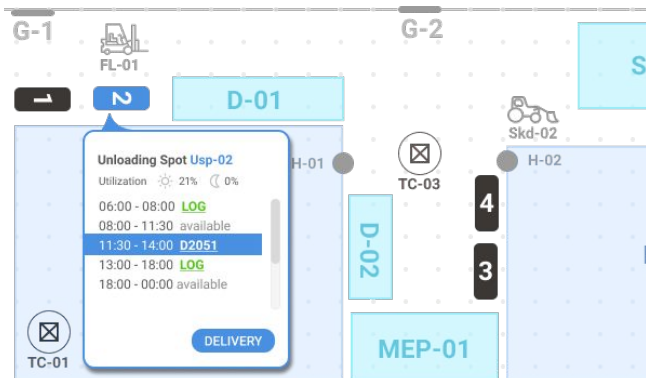
DELIVERY & EQUIPMENT SCHEDULE

Current, real-time status of all your deliveries



INTERACTIVE SITE PLAN

Up-to-date site layout with daily agenda for unloading resources



CONTROL AT GATE

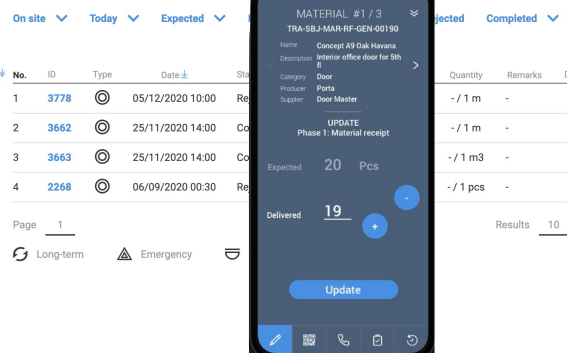
Access control at gates with e-delivery card, check-in & check-out



MONITORING DELIVERIES

All your planned & completed with reported quantities, QC and CO2 emissions

Deliveries



Over the years we have developed a state-of-the-art platform for **construction logistics management**

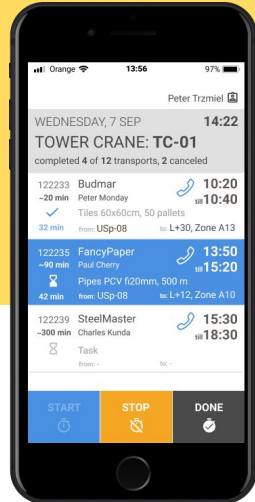
Monitored for over 5 years

- +50,000 RMX concrete deliveries
- +100,000 other materials deliveries
- from +1,000 suppliers
- for +800 construction companies
- across +2s construction sites

FOR SUBCONTRACTORS



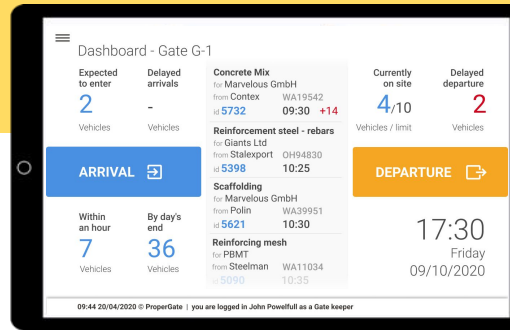
FOR EQUIPMENT OPERATORS



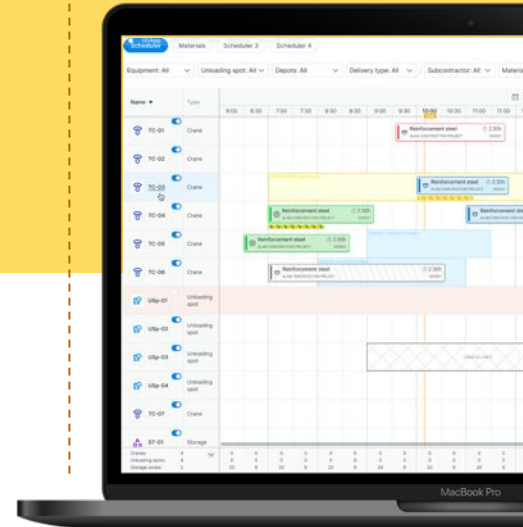
Main features:

- Delivery and equipment schedule
- Monitoring delivery and unloading status
- Traffic control at gates
- Interactive site layout with daily agenda
- Automating concrete & prefabs delivery orders

FOR GATEKEEPERS / SECURITY GUARDS



FOR LOGISTICS COORDINATORS



AWARDS

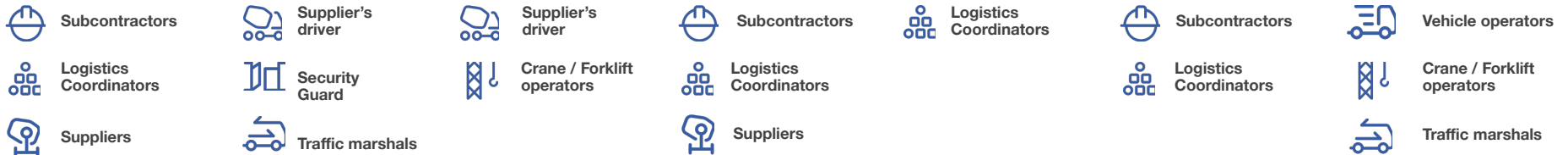


What **activities** in the **logistics process** are supported by ProperGate ?



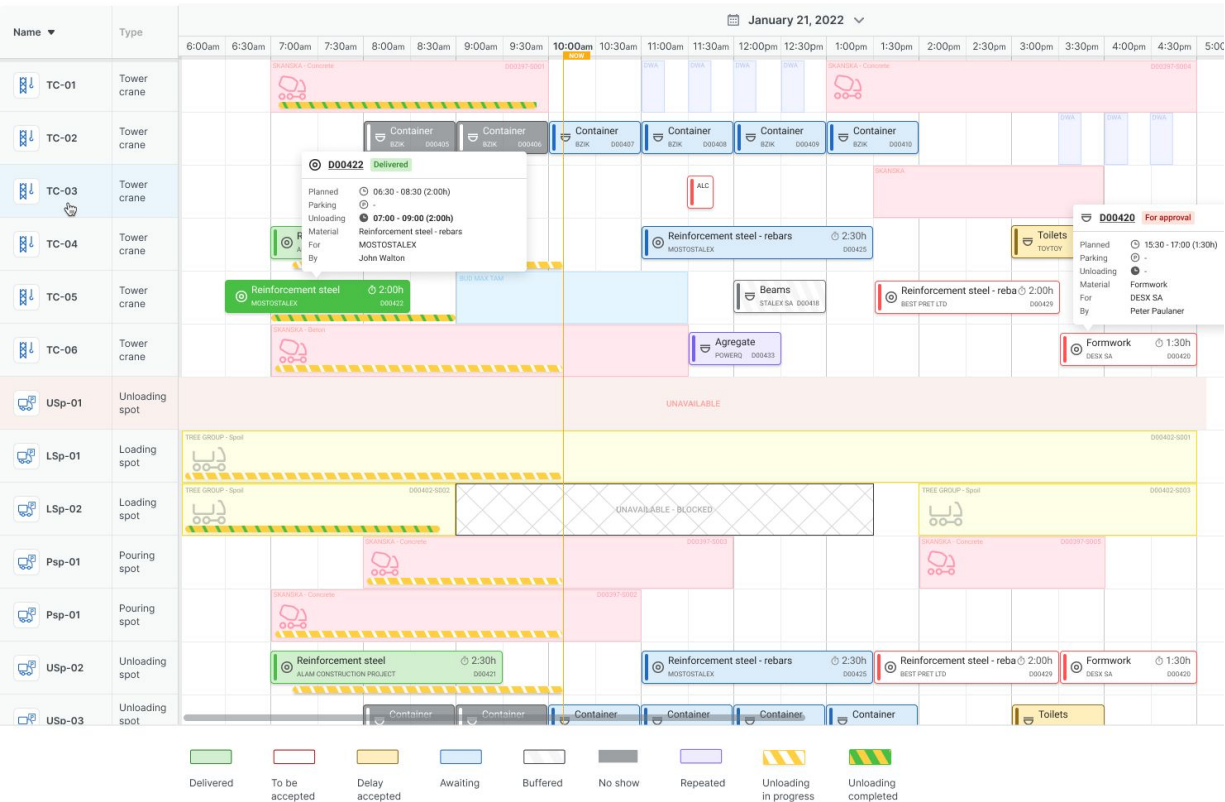
- Real-time schedule
- Booking requests
- Request approval
- Completeness of data
- Instructions for drivers
- Digital entry pass
- Online verification
- Arrivals/departures log
- Unloading instructions
- Scheduled equipment
- Real-time notifications
- Predefined locations
- Mobile check on site
- Full concrete-mix control
- Digital delivery notes
- Inventory update
- Declaration of needs
- Transfer to/from CCC
- Location after arrival
- Target floor / zone
- Quick site plan updates
- Interaction with objects
- All objects in relations
- Objects geo-localized
- Zone, destination, floor
- Cranes, hoists, lifts
- Forklifts, trucks, skippers
- Communication with CCC

FEATURES IN PROPERGATE



PROPERGATE USERS / ROLES RESPONSIBLE ON SITE

Material delivery planning & monitoring



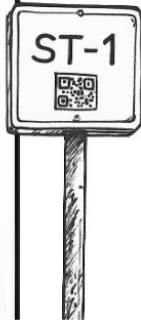
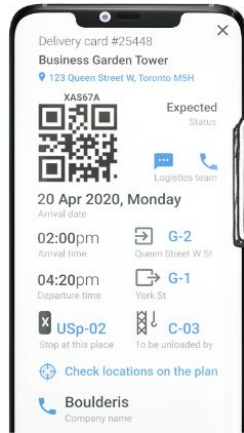
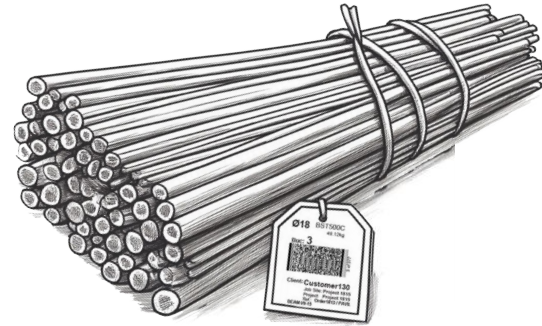
KEY BENEFITS OF PROPERGATE SCHEDULING:

- **Minimized waste:** Just-in-time deliveries reduce damage and excess stock.
- **Optimized resource use:** Efficient utilization of unloading equipment and storage space.
- **Improved material lifecycle management:** Monitoring consumption and reusing surplus materials.
- **Reduced carbon footprint:** Fewer transports through precise scheduling.
- **Effective subcontractor coordination:** Lower risk of delays and unnecessary process repetitions.
- **Increased transparency and control:** Data on timing, location, and unloading improve planning.
- **Support for installations:** Schedules aligned with work phases minimize material losses.

Material labeling & identification

KEY BENEFITS OF USING QR CODES IN MATERIAL:

- Enhanced traceability with real-time tracking
- Ensuring accurate material procurement and usage
- Improved accuracy in material identification
- Faster inventory management through quick scanning
- Integration with digital systems like BIM for real-time updates
- Reduced downtime by streamlining delivery and installation
- Seamless coordination across teams and suppliers
- Simplified documentation for material tracking
- Efficient material handling and retrieval
- Reducing the risk of errors



PROJECT ID: SKAGPK **DELIVERY ID: D948235**

FROM (SUPPLIER)
 Supplier name: S.A.
 Street: Magpie 152
 City: 22-121, PL.
 TEL: +48 516 102 236

SOURCE LOCATION
 Supplier Plant (City):
 Street: Magpie 177
 City: 22-121, PL.
 GPS: 52.16431, 21.36773

FOR (CONTRACTOR)
 Subcontractor Company name:
 Firmname_LastName:
 TEL: +48 515 230 400
 www.companypolonia.com

FINAL DESTINATION
 Construction Site name:
 Street of TheSite 345
 Warsaw, 03-123
 GPS: 52.31987, 20.98459

TRANSPORT UNIT ID: 28456789033455

FROM (SUPPLIER) **TO (CONTRACTOR)** **TRANSPORT UNIT TYPE** **EARLIEST BEST BEFORE**

Building (B1) Unloading spot (U2) Truck stop-off (OS) Final Toile destination (D4)

B-A	Usp-02	ST-03	L15-ST2
Floor (D5)	Zone (D6)	Apartment (D7)	Room (D8)
L-15 / L-16	-	1502 - 1603	*

CONTENT / MATERIAL CATEGORIES
Fit-out materials

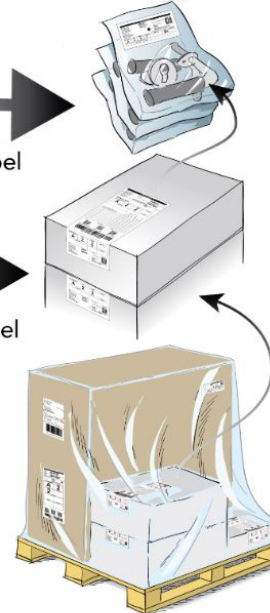
Qty	Unit	Package ID / Product name	DC
8	Box	2845678903 / Black panel panel 10L	L-13
8	Box	2845678903 / Black panel panel 10L	L-14



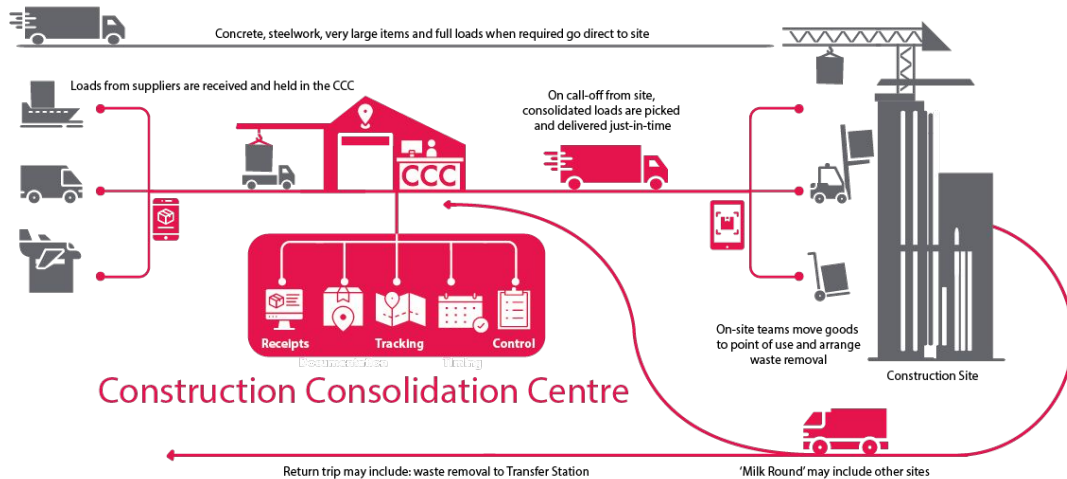
Product Label

Package Label

Pallet Label



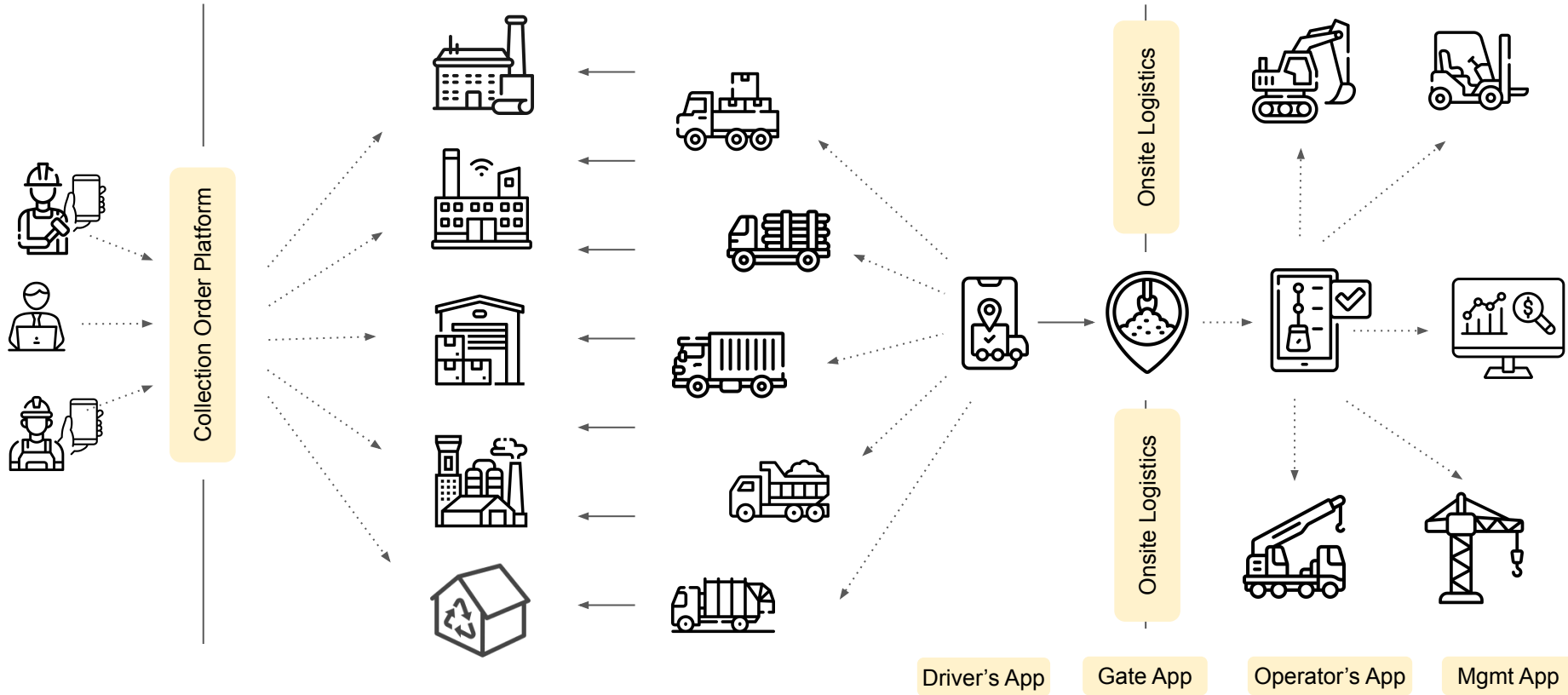
Offsite Construction Consolidation Center



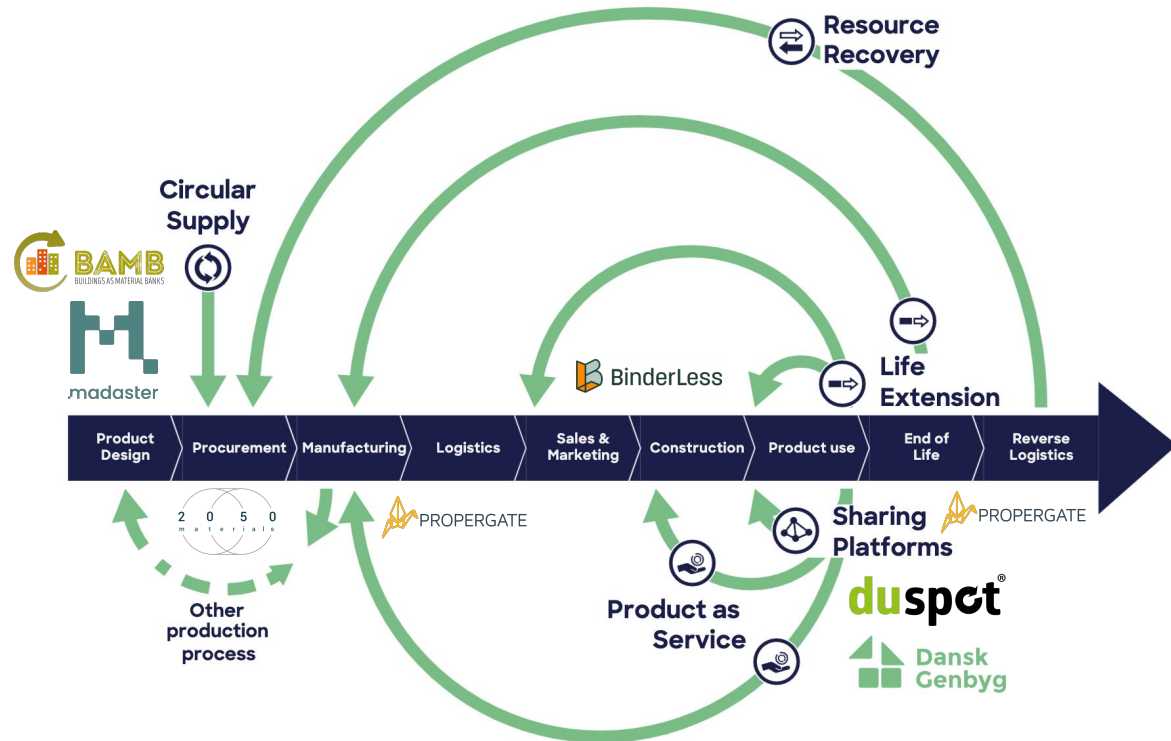
KEY BENEFITS OF PROPERGATE SUPPORTING CCC MANAGEMENT:

- **Reduction of the logistics footprint on-site:** Decreasing the number of vehicles on-site reduces CO2 emissions and air pollution.
- **Consolidation of materials from multiple suppliers:** Reduces the number of transports, minimizing fuel consumption and emissions.
- **Labeling materials with QR codes or RFID tags:** Simplifies material identification on-site, enhances resource management efficiency, and reduces losses due to storage and transport errors.
- **Load optimization:** Reducing empty vehicle runs and improving resource utilization lowers environmental impact.
- **Reverse logistics:** Effective management of materials and equipment enables reuse, reducing waste.
- **Management of returned packaging:** Reuse and recycling of packaging minimize waste at construction sites.
- **Off-site storage of materials:** Protects materials from damage, reducing waste and the need for producing new components.
- **Centralized quality control and maintenance:** Ensures material quality, reducing losses caused by defective or damaged products.
- **Efficient (un)loading processes:** Minimizes material losses caused by improper handling during transport and on-site operations.
- **Real-time tracking of material availability:** Prevents overproduction and over-ordering, reducing material waste.
- **Preparation and assembly of kits off-site:** Facilitates efficient waste management and recycling, reducing on-site waste.
- **Faster project execution with ready-to-assemble kits:** Shortens construction time, reducing overall energy consumption and emissions related to project execution.

Unified Platform for coordinating **reverse logistics** in demolition projects



Data Ecosystem for Circularity



1. Circular Supply

Replace virgin raw materials with materials that are renewable or bio-degradable.



2. Resource Recovery

Recover discarded products or by-products to recycle or upcycle the materials.



3. Life Extension

Extend the life cycle of a product, or parts of a product, while preserving the original function.



4. Sharing Platforms

Increase the use of a product through new models for sharing, accessibility, and ownership.



5. Product as Service

Optimise productivity of a resource or product while maintaining ownership of the product.

Traction

Selected Implementations in EMEA

35 000 deliveries

Six Construct
Dubai
Uptown
Tower
UAE



ECHO
INVESTMENT
Warsaw
Brewery
Poland

from 21 to 40 deliveries daily for 3 GCs at 3 bldgs & 2 gts

8 600 prefabricated elements

KAJIMA
PANATTONI / AMAZON
186,000 m2
Poland

SKANSKA
Generation
Park
Poland

from 25% to 100% controlled deliveries

Time to improve on-site logistics

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Global Business Development

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