GMV Planner

POWERED BY DPK SYSTEM

gmv
INNOVATING SOLUTIONS

ITS

The best solution for mass transit planning and operation

GMV Planner offers transit operators and authorities a really powerful tool for the complete lifecycle management of the public transport service planning and operation.

It generates **optimal solutions for timetabling, scheduling, rostering** and dispatching for buses and drivers, according to business rules and existing restrictions. **GMV Planner** reduces the operating costs and improves the public transport services offered, **increasing the Return of Investment** (**ROI**) in a very short time. It saves time-consuming tasks by working quickly and efficiently with a significant amount of data in an **integrated way** (**for instance: rostering time is reduced 20 to 25 times**).

The engine of **artificial intelligence and algorithms with multi-criteria-based mathematical optimization techniques** is flexible and mighty as a result of the cooperation with the Polytechnic University Tadeusz Kościuszko of Krakow, and makes it possible to plan multiple diverse scenarios with different parameters that can be compared to each other, as well as to obtain automatic suggestions of best alternative.
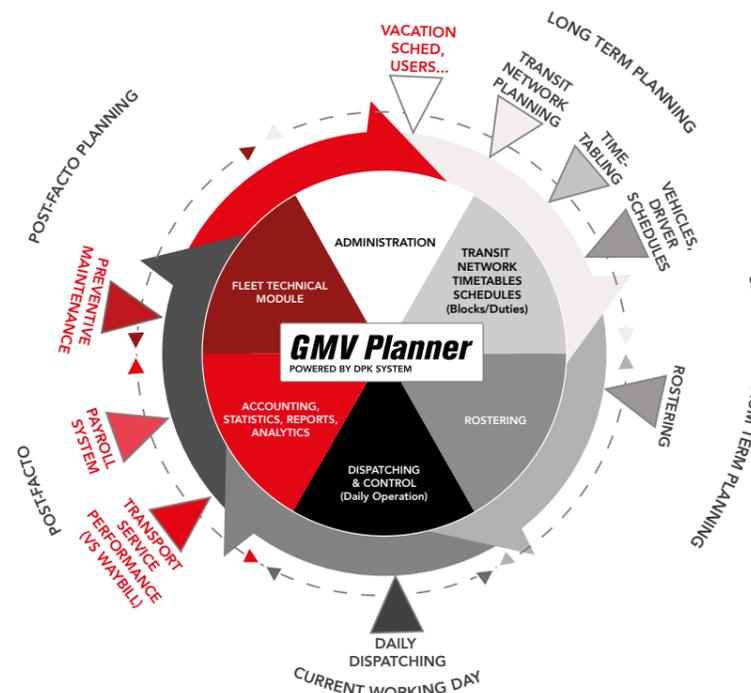
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A COST-SAVING TOOL FOR EFFICIENT PLANNING AT EVERY MOMENT

GMV Planner enables public transport companies to manage the complete lifecycle of the transit Service Planning and Operation in a continuous data flow along all the integrated modules supporting the activities that take place with different time and periodicity:

- **Long-term planning** (driver's vacation plan, timetabling & calendars, scheduling), **medium-term** (blocking/run-cutting, blocks & duties roster) and **short-term** (corrections on daily assignments).

- Support to the operation during transport service (**daily dispatching** and control).

- **Post-facto analysis** of the effective service performance and data exploitation by corporate systems (payroll, SAP / ERP ...)

- **Planning maintenance activities** for each vehicle after the work is done.
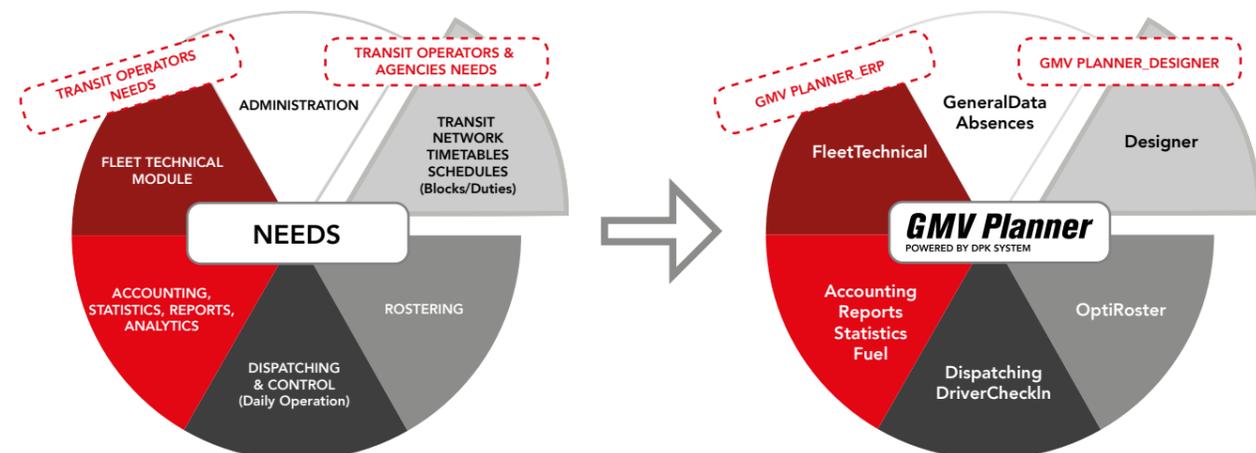

SPECIALIZED MODULES FOR AN OPTIMAL RESULT

Both the **transport operators** and the **authorities** and agencies that organize it need **to generate optimal networks with efficient schedules** according to the flow of passengers and riding times in each time zone / day type, with capability of providing **efficient and synchronized transit** between routes and nodes **with the lowest operational cost**.
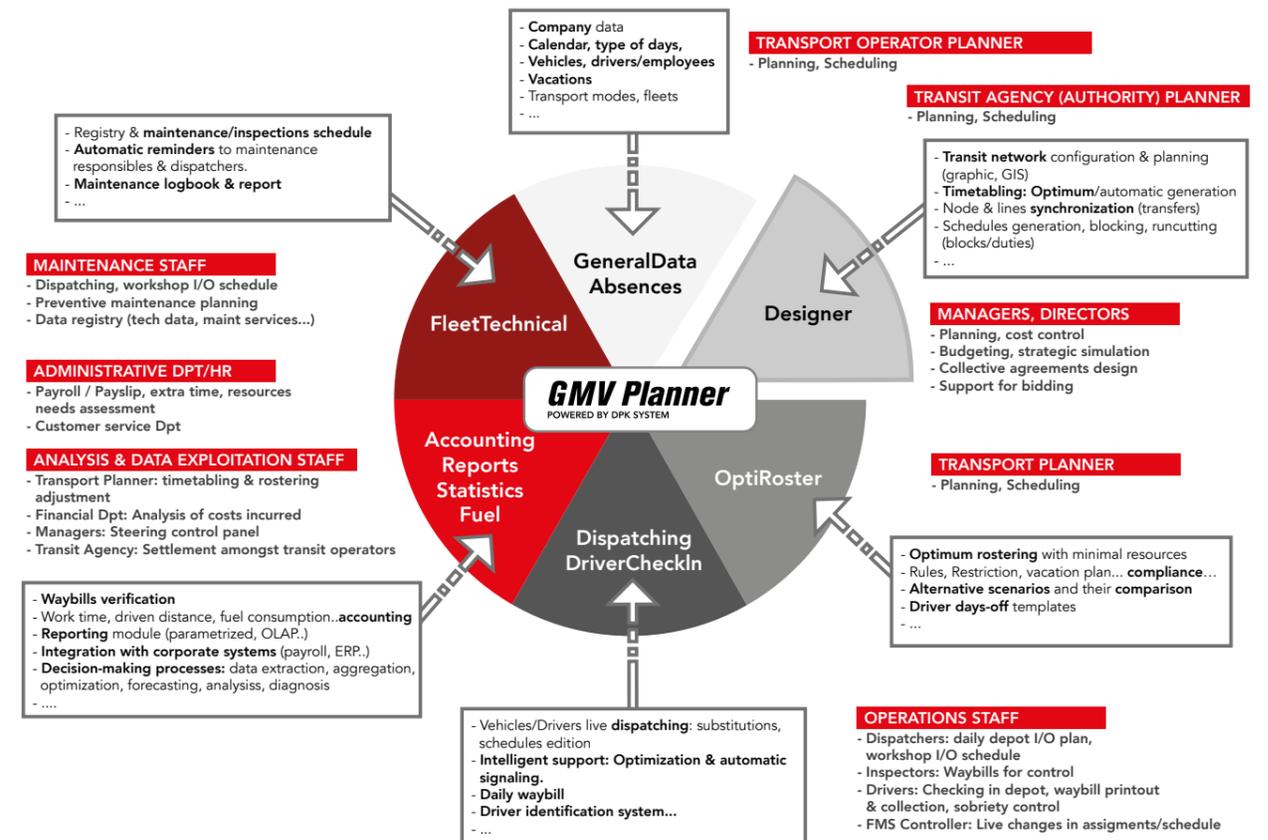
GMV Planner covers the needs of both agents and their user profiles by organizing their modules in:

- **GMV Planner_Designer**. Tool for designing the **transit network** and the generation of optimum / automatic **timetables** and **schedules** for **various calendars and types of day**, integrating **different operators**, **transport types** or administration units in same system. It is aimed at both authorities and operators.

- **GMV Planner_ERP**. It is an enterprise resource planning system acting as a global management system composed of **highly configurable specialized** modules that interact with each other consolidating operations in the centralized database that ensures **consistent**, **complete and common data** even in real time in all modules. It is mainly used by operators. It **includes the following modules**:

THE RIGHT HELP FOR EACH STAKEHOLDER

GMV Planner provides all staff with suitable modules for each responsibility and stage in the business cycle.

A TOOL THAT ALSO OPTIMIZES THE USER EXPERIENCE

Ergonomic and user-friendly graphical interface based on intuitive standards of Microsoft™ offering to the user configurable screens, stackable windows, the option to work on multiple monitors, customized representation of the information, multiple forms of presentation and graphical editing (tabular, stringline chart –Marey chart–, GIS, bar diagrams ...). The results provided are ready to be printed for all staff or for individual employees.

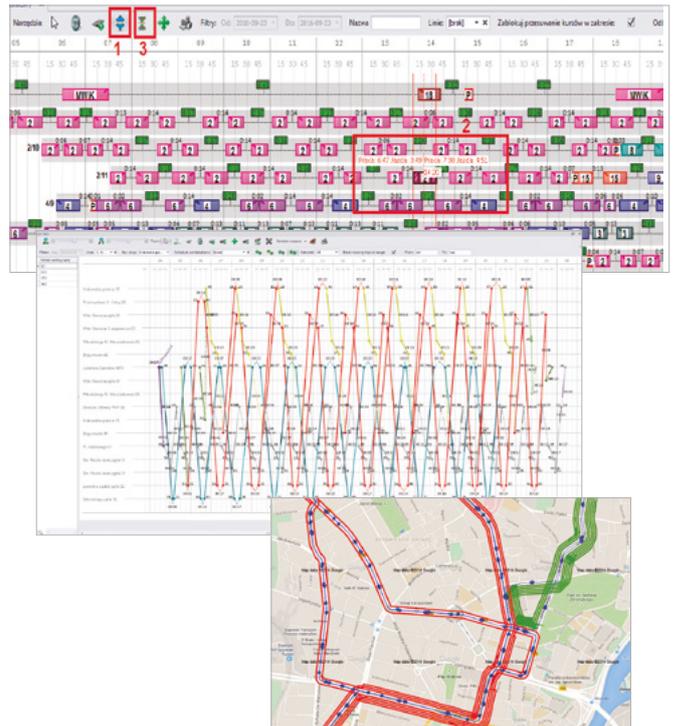## *GMV Planner* IN SYNERGY WITH THE REST OF CORPORATE SYSTEMS

GMV Planner as a central element in the planning and management of the mass transit system gets integrated with other corporate management modules owned by the Operator (Payroll systems, tools for timetabling printout, ERP / SAP…) or by the Agency (Settlement systems…). It also allows the integration with components like Fleet Management/Passenger Information Systems and Fare Collection Systems, provided by GMV or third parties.
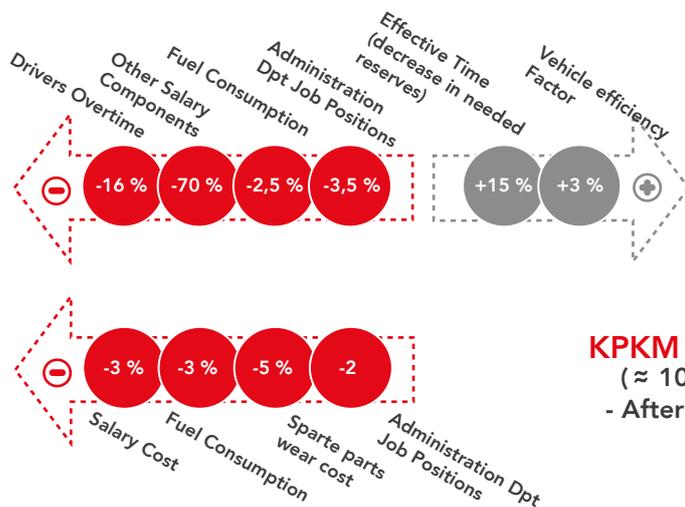
A PROVEN AND SAFE BET: A WORLD CLASS TOOL

Behind *GMV Planner* there is a set of software modules currently supporting the daily activities of approximately 30,000 vehicles and around 1,000 operators (urban, intercity, rail and emergency services…) that have been awarded several times:

- Award for Best Engineering Innovation at the conference "Qatar Transport Safety Forum" in Qatar 2016

- GOLDEN MEDAL: "Passenger Service Systems" at the XIII International Fair of Transport TRANSEXPO 2016

- GOLDEN MEDAL VII International Fair TRANSEXPO 2009 for TSI 2010 System for PT and Automotive Optimization.

Customers enjoy significant savings soon after implementing the system. These benefits include several aspects, as proven in multiple clients with different boundary conditions.

Drivers Overtime / Other Salary Components / Fuel Consumption / Administration Dpt Job Positions: **-16 %** | **-70 %** | **-2,5 %** | **-3,5 %**

Effective Time (decrease in needed reserves) / Vehicle efficiency Factor: **+15 %** | **+3 %**

MZA WARSAW
(> 1300 Buses)
- After 1st year -

Salary Cost / Fuel Consumption / Sparte parts wear cost / Administration Dpt Job Positions: **-3 %** | **-3 %** | **-5 %** | **-2**

KPKM Białystok
(≈ 100 Buses)
- After 1st year -

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