Community of Metros
CoMET

Nova
Group of metros

Use of Multi-Functional Staff in Metro Systems Across the World

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Benchmarking: Comparing Performance and Sharing Good Ideas with a Focus on Improvement

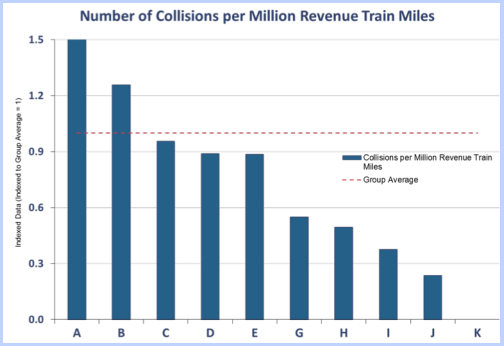
Benchmarking Is:

A systematic process of *continuously* measuring, comparing and *understanding* performance and *changes* in performance

Of a diversity of key business processes

Against comparable peers

To help the participants improve their performance



(Adapted from the definition by Lema and Price)

Benchmarking Provides:

Perspective through Data:

- How do we **compare** to our peers?
- What are our **strengths**?
- What are our **weaknesses**?
- Quantitative Backing for "rules of thumb"

Best Practices through Discussion:

- What are others doing to **improve**?
- What **works**/what doesn't?
- How to **implement best practices**.

"Rarely is there a challenge that someone else hasn't faced…"

International Benchmarking: Eight Public Transit Groups – Benefits Drive Continued Participation

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Community of Metros CoMET	Nova Group of metros	IBBG	ISBERG
Founded 1994	Founded 1998	Founded 2004	Founded 2010
18 Members, including New York, London, and Hong Kong	20 Members, including Rio, Toronto, and Barcelona	15 Members, including Dublin, Montreal, Paris, and Singapore	14 Members, including Munich, Tokyo, and Sydney

ABBG	GOAL	International Mainline Rail	Railway Infrastructure
Founded 2011	Founded 2016	Founded 2016	Founded 2016
22 Members, including Austin, Cleveland, and Rhode Island	11 Members, including Dallas, Seattle, Calgary, and Charlotte	6 Members, with Norway, Belgium, Netherlands, and Australia	4 members, initially in Australia

CoMET and Nova: The World's Metro Benchmarking Community – Now 38 Urban Rail Systems in 36 World Cities

Six Main Types of Multifunctional Roles Were Identified – 3/4 of Responding Metros Already Have and 2/3 Plan to Increase

Ticketing + other station tasks

Stations + driving

Attendants on GoA3/4 lines

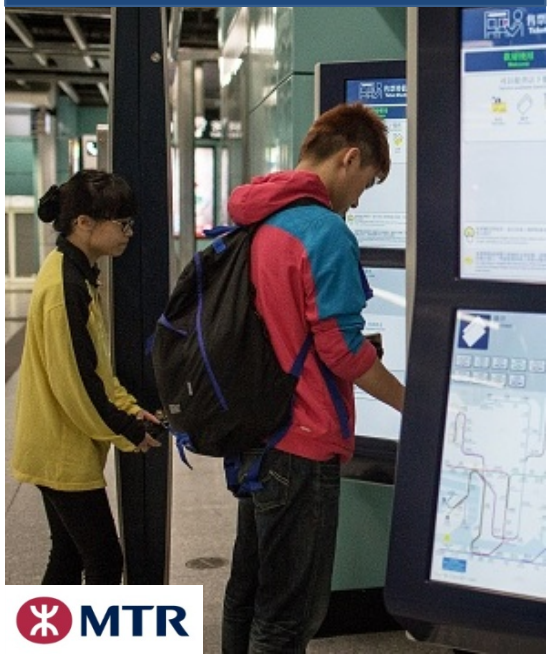
Maintenance + driving, stations or other maintenance

Combining multiple roles/desks in OCC

OCC + driving, stations, or staff management

Station-Based Multi-Functional Roles are the Most Common, Starting with Combining Ticketing and Other Functions

Selling tickets



Customer information

Platform management

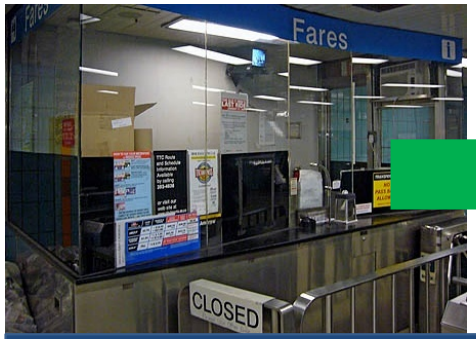
Security Staff Providing Customer Service

Changes to Station Staffing Models Reflect Need to Make Most Efficient Use of Resources and Respond to Customer Needs

Key outcomes of station multi-functional roles in European metros:

- **Reduced costs, partly offset by added infrastructure, security, and supervision**
- **No loss in revenue**
- **Increased customer satisfaction, with staff easier to contact (despite fewer total staff)**
- **Increased staff satisfaction (and motivation)**

Barcelona Metro: "Staff do whatever is needed to make the metro work"

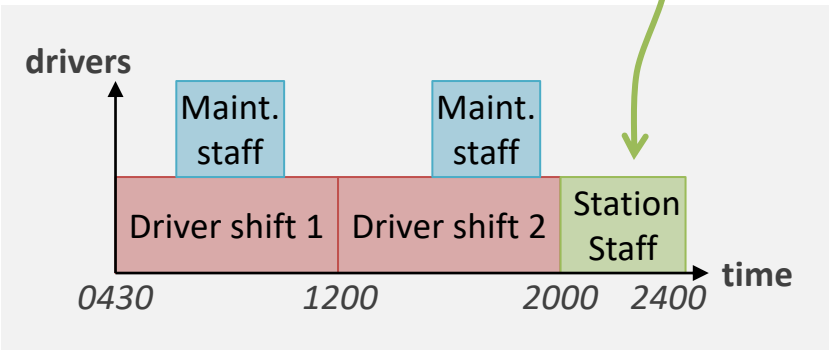


Removing ticket offices or station booths and bringing station staff in front of customers

Example of Combined Train Driving and Station Roles at a European Metro

"Station"

- **50% driving trains in service**
  - During the last 4 hours of service



- **40% performing station tasks**
  - platform and dwell management
  - customer information
  - station administration
- **10% office work**

"Movement"

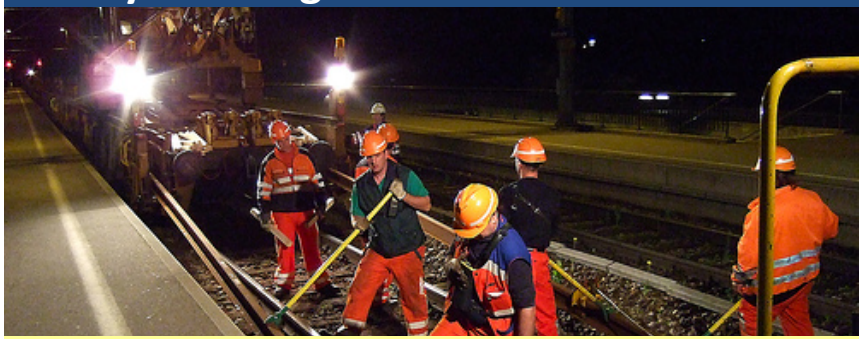
- **60% driving**
  - Based on needs, e.g. filling in for absent drivers
- **10% network incident response**
  - e.g. securing switches
- **10% incident response in stations**
  - e.g. responding to sick passengers, door failures, or urgent cleaning
- **20% miscellaneous missions**
  - e.g. customer satisfaction surveys

Examples of Multifunctional Maintenance Staff Roles – Focus on Flexibility and Better Collaboration Across Functions

Rolling stock maintainers drive trains during peak hours when trains are in use

Saves headcount and improves working relationships between operations and maintenance (for a small pay premium)

Track workers: 15 days daytime repairs; 15 days overnight reconstruction



Avoiding continuous night work helps staff mental health and reduces wage costs

Use the same group of staff to both drive and maintain engineering vehicles

Maintenance technicians trained in multiple disciplines

Quick reaction for corrective maintenance, especially on elevators and escalators

Difficult to retain such highly-skilled technicians

Difficult to keep technicians trained across many areas as technology develops

Five Key Areas Sum Up the Opportunities, Enablers and Barriers to Multi-Functional Working

Organisational Vision, Philosophy, & Culture

Staff Management

Staff Skills

Technology and Automation

Fresh Starts

There are Currently Several Global Automation Trends, Each of Which Helps to Enable Multi-Functional Working

Fresh Starts

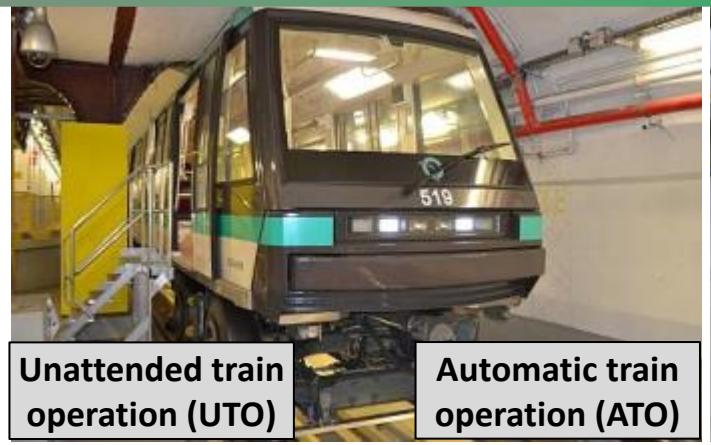
Technology and Automation

Enablers

- ✓ New lines and stations
- ✓ Modernization
- ✓ New contracts

Barriers

- ✗ Limited funding
- ✗ Old technology
- ✗ Station design



Unattended train operation (UTO)

Automatic train operation (ATO)

Remote/ mobile station operation

Smartcard /bank card ticketing

Automated ticket sales

Maintenance techniques

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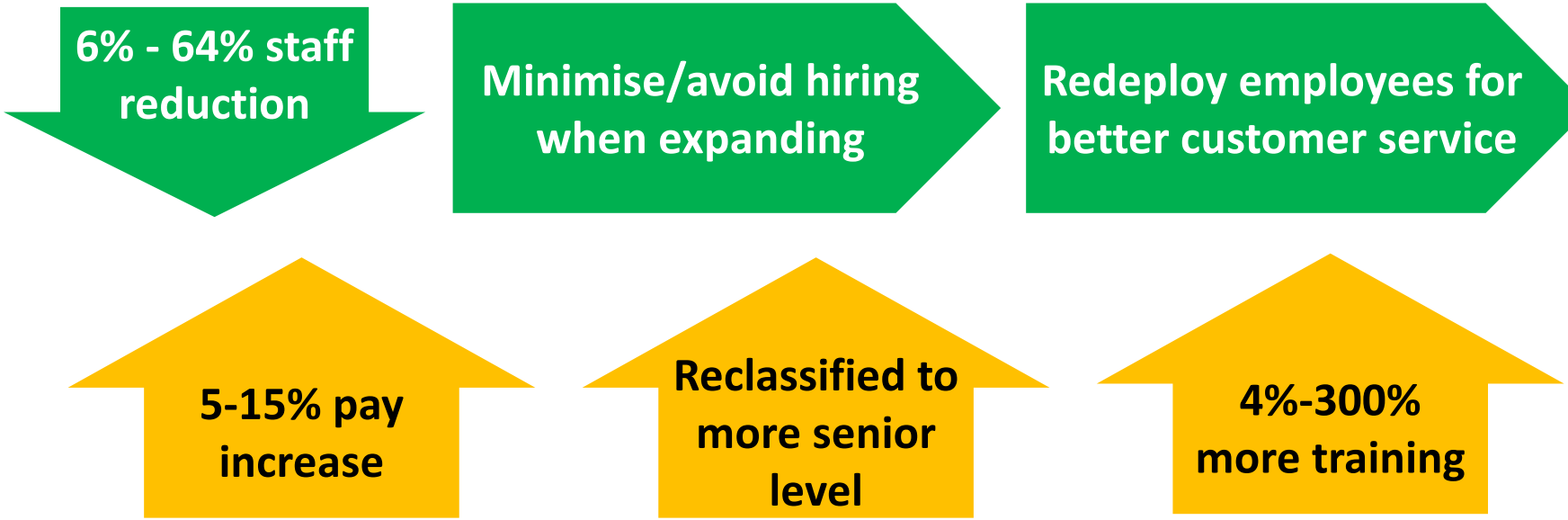
Significant Benefits of Multi-Functional Staff for Metros, Employees, and Customers



Multi-functional roles tend to be **more interesting and rewarding**

Multi-functionality can **develop the careers** of talented employees

Multi-functional roles build **operational flexibility & resilience**

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Thank You!

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