



# Anuário Segurança Rodoviária 2023

→ ROAD SAFETY YEARBOOK 2023





# 01

## Aproximar em segurança

Safe connections



# 02

## Para refletir

To think about



# 03

## Preparar as próximas viagens

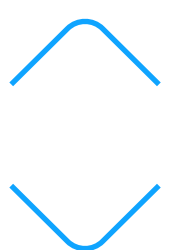
Preparing the next journey



# 04

## Glossário

Glossary







# 01

## Aproximar em segurança

Safe connections



Conduzir o Futuro  
Driving the Future





**Caro leitor,**

**No ano de 2023 a rede Ascendi registou um crescimento de 9% no tráfego em relação ao ano anterior e de 14% em relação a 2019 (ano referência pré-pandemia COVID 19).**

**A evolução da sinistralidade mostra um ligeiro crescimento das vítimas para um total de 477 (+5%), mas também uma redução no número total de acidentes, acidentes com vítimas e, naturalmente, e de modo muito significativo, redução do índice de sinistralidade.**

**Cumprimos, assim, a meta de redução anual de 5% de vítimas em todos os anos de vigência do nosso Plano de Ação de Segurança Rodoviária 2020-2023 (PASR), objetivo definido para a nossa rede naquele período. Desde o início do plano, houve uma redução acumulada de -670 vítimas.**

**Luís Silva Santos**

Presidente do Conselho de Administração  
Chairman of the Board of Directors

**Dear reader,**

In 2023, Ascendi's network experienced a notable 9% growth in traffic compared to the previous year, and an impressive 13% growth when compared to 2019 (pre-COVID-19 pandemic reference year).

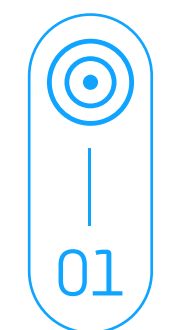
While the data indicates an increase in casualties, totaling 477 (+5%), there has been a reduction in the overall number of accidents, injury accidents and a significant decrease in the injury rate.

We are pleased to report that we successfully met the annual 5% casualties reduction target outlined in our Road Safety Action Plan 2020-2023 (RSAP) throughout its duration. Since the beginning of the plan, there has been an accumulated reduction of -670 victims.

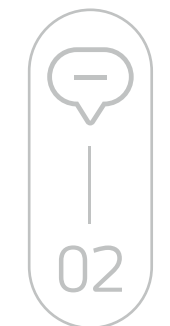




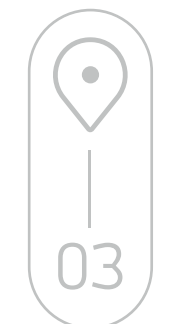
Das medidas previstas no PASR da Ascendi que agora termina, destaco a continuação da execução do Plano de Substituição de Barreiras de Segurança no qual a empresa investiu aproximadamente 3 M€ no reforço de 37 km adicionais (cerca de 19,6 M€ acumulado até à data), tendo sido dada continuidade à aplicação do novo sistema de contenção para pontes e viadutos específico para a realidade rodoviária nacional que foi desenvolvido em cooperação com a empresa espanhola Road Steel Engineering.



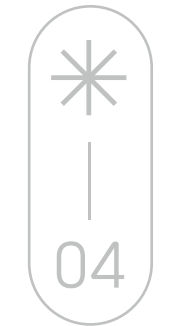
O desenvolvimento de estudos e a implementação de medidas de mitigação de riscos de acidentes em zonas de elevada sinistralidade rodoviária prosseguiram como ações fundamentais, verificando-se uma tendência de decréscimo sustentado na sinistralidade nesses locais. É também de especial referência a instalação de equipamentos de telemática na Concessão Norte para melhoria da informação aos utentes, nomeadamente painéis de mensagem variável e câmaras de vídeo.



Prosseguimos com a promoção dos comportamentos seguros na estrada e já vamos na 3ª edição do projeto de teatro infantil "Patrulha Júnior" que chega anualmente a milhares de crianças ao longo dos diversos municípios servidos pela rede Ascendi e cuja mensagem está centrada nos riscos associados ao uso do telemóvel durante a condução.



Finalmente, a Ascendi foi vencedora do prestigiado prémio "IRF Global Road Achievement Awards 2023" na categoria "Segurança" com o projeto do "Plano de Ação Segurança Rodoviária 2020-2023". Foi um reconhecimento do trabalho desenvolvido ao longo dos últimos quatro anos que nos encheu de orgulho e que reforçou a nossa responsabilidade para prosseguir.



Nesse sentido, estamos agora a finalizar o novo Plano de Ação de Segurança Rodoviária 2024-2027, que manterá o compromisso da Ascendi para uma rede cada vez mais segura para os nossos clientes.

A key highlight within the RSAP measures is the ongoing implementation of the Safety Barrier Upgrading Plan. This year alone, an additional investment of approximately €3 million euros (totaling around €19.6 million to date) was dedicated to reinforcing 37 km of the network. Additionally, the installation of a new containment system for bridges and viaducts, developed in collaboration with the Spanish company Road Steel Engineering, continued.

The commitment to mitigating accident risks in high-accident areas remains a top priority. Notably, the development of studies and implementation of measures has led to a sustained decreasing trend in accidents within these zones. Special attention has also been given to the installation of Intelligent Transportation Systems (ITS) on the North Concession, improving user information through variable message signs and video cameras.

Our dedication to promoting safe behavior on the road persists, with the ongoing success of the "Junior Patrol" education initiative now in its 3rd edition. This program reaches thousands of children annually across various municipalities, focusing on the risks associated with using cell phones while driving.

Finally, we are proud to announce that Ascendi was honored with the "IRF Global Road Achievement Awards 2023" in the "Safety" category for our "Road Safety Action Plan 2020-2023" project. This recognition underscores our pride in the work accomplished over the last four years and reinforces our responsibility to continue our focus on road safety.

Looking ahead, we are in the final stages of developing the new Road Safety Action Plan 2024-2027. This plan will uphold Ascendi's commitment to providing an increasingly safe network for our users



Finalmente, a Ascendi foi vencedora do prestigiado prémio "IRF Global Road Achievement Awards 2023" na categoria "Segurança" com o projeto do "Plano de Ação Segurança Rodoviária 2020-2023".

Finally, we are proud to announce that Ascendi was honored with the "IRF Global Road Achievement Awards 2023" in the "Safety" category for our "Road Safety Action Plan 2020-2023" project.

**Conduzir o Futuro**

Driving the Future





## Destaques 2023

### Highlights



**970**

Acidentes  
Accidents



**323**

Acidentes c/ vítimas  
Injury accidents



**477**

Total de vítimas  
Total casualties



**8.70**

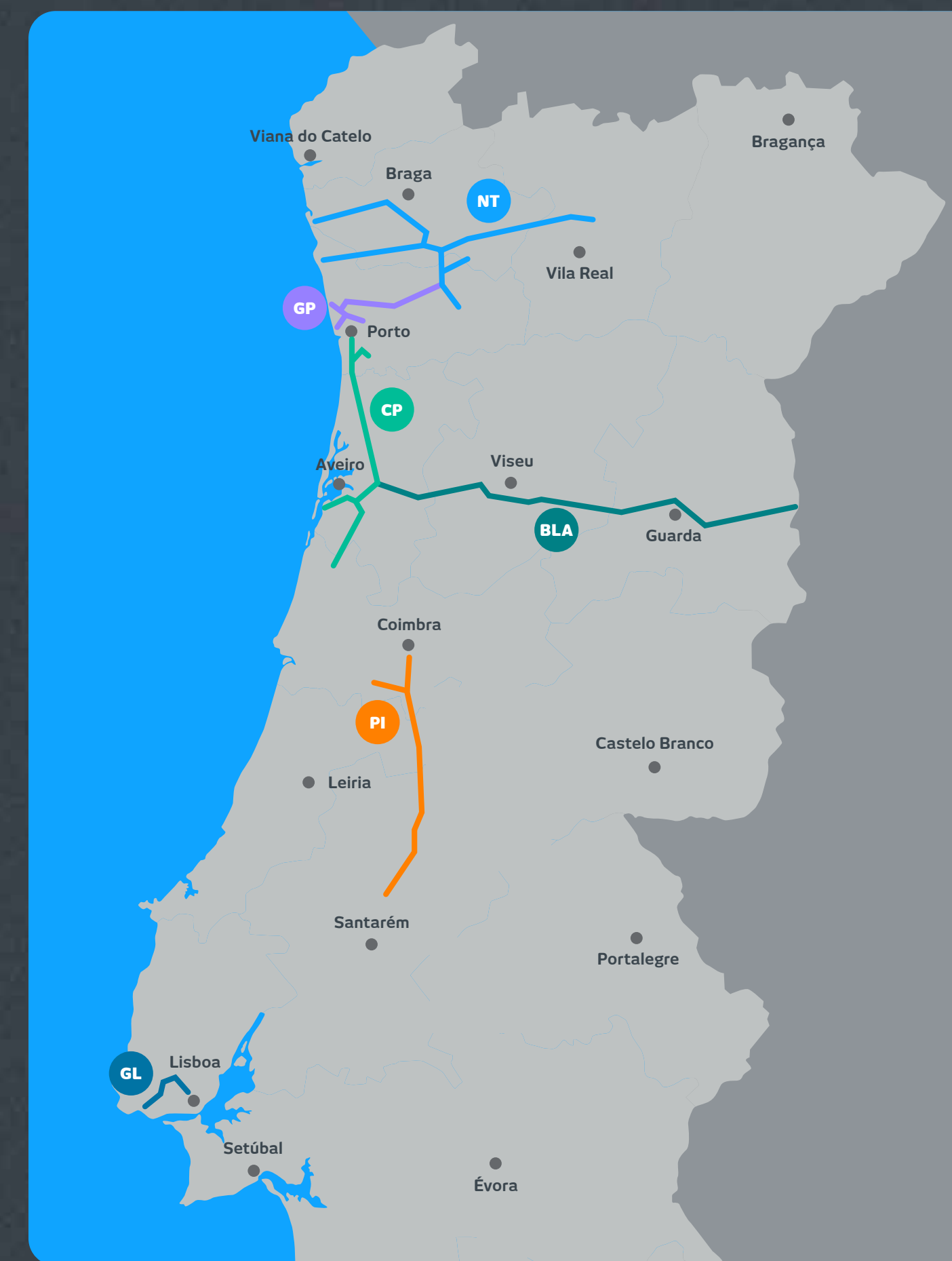
Índice de sinistralidade  
Road traffic injury rate

## Rede Ascendi

### Ascendi Network



- NT** Norte **179 km**
- BLA** Beiras Litoral e Alta **172 km**
- CP** Costa de Prata **105 km**
- GL** Grande Lisboa **23 km**
- GP** Grande Porto **55 km**
- PI** Pinhal Interior **93 km**







# 02

## Para refletir

To think about



Conduzir o Futuro  
Driving the Future





# Acidentes

2018 — 2023

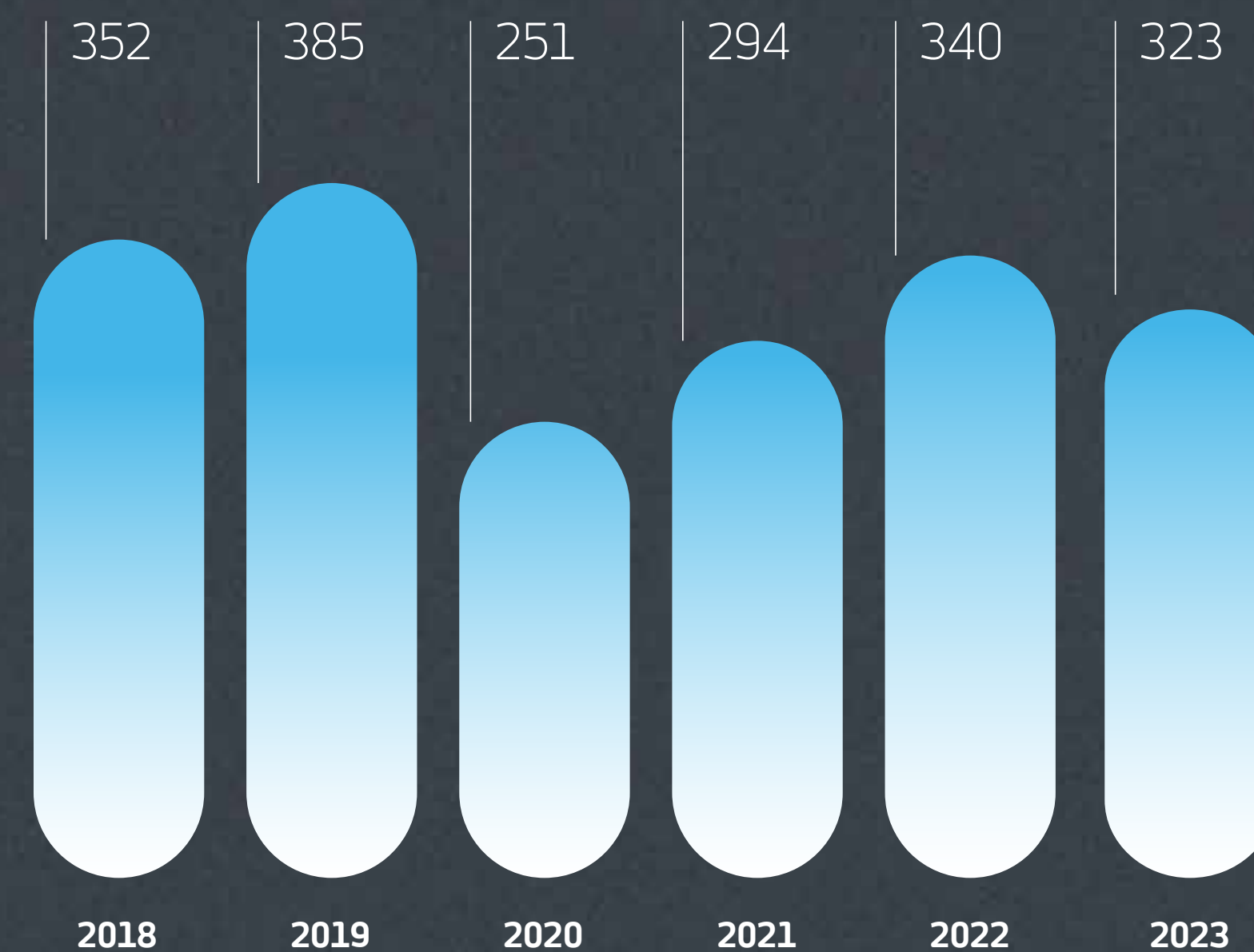
Accidents



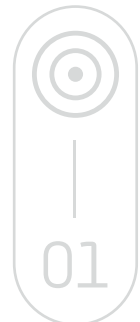
# Acidentes c/ vítimas

2018 — 2023

Injury accidents



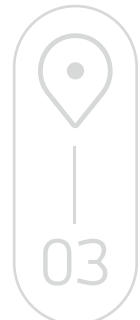




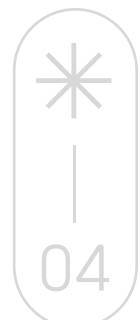
01



02



03



04

# Vítimas

Casualties

2018 — 2023

## 2023

### 8

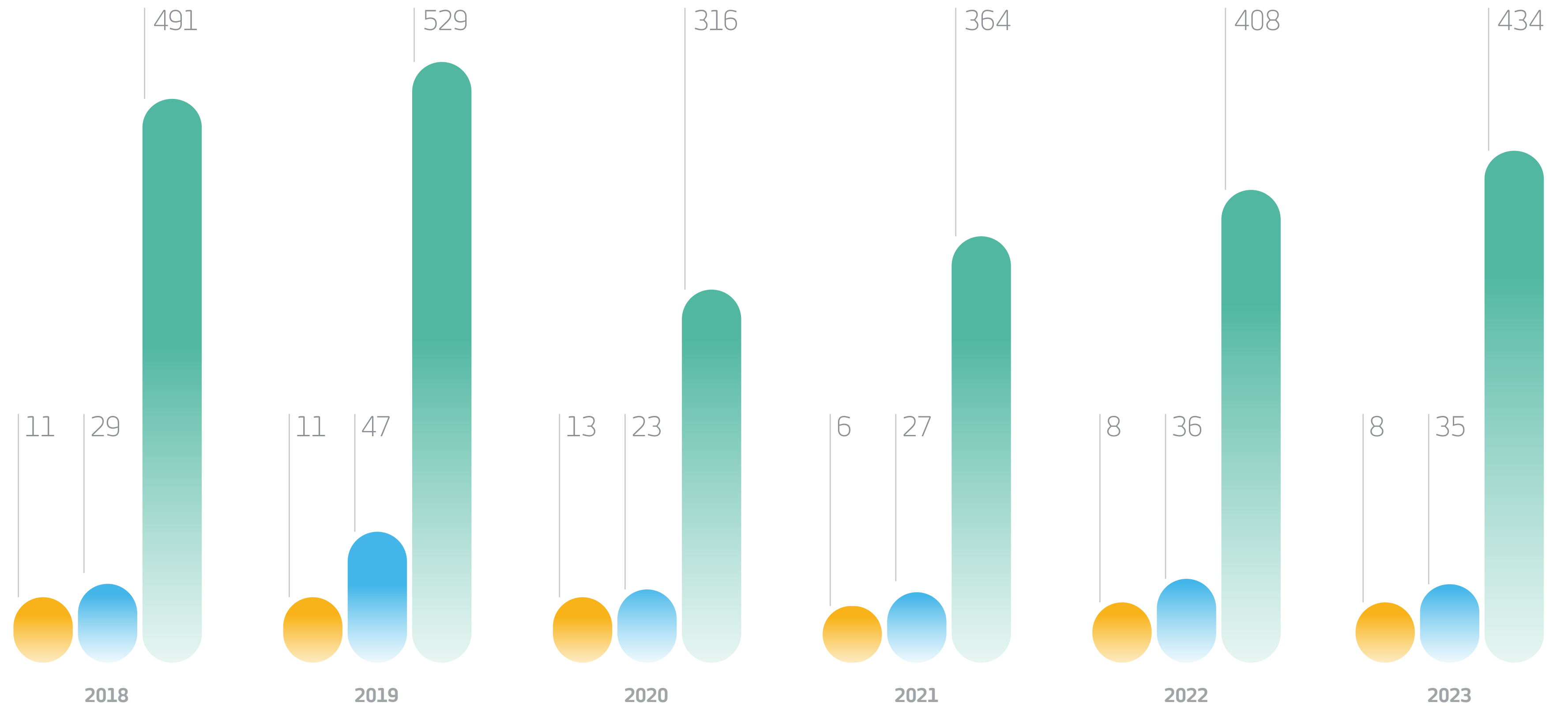
Mortos  
Fatalities

### 35

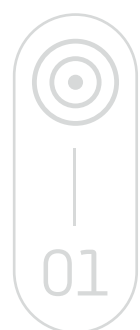
Feridos Graves  
Seriously Injured

### 434

Feridos Ligeiros  
Slightly Injured

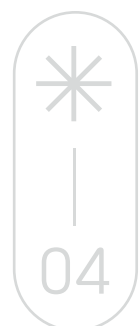
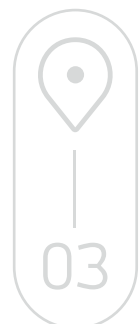
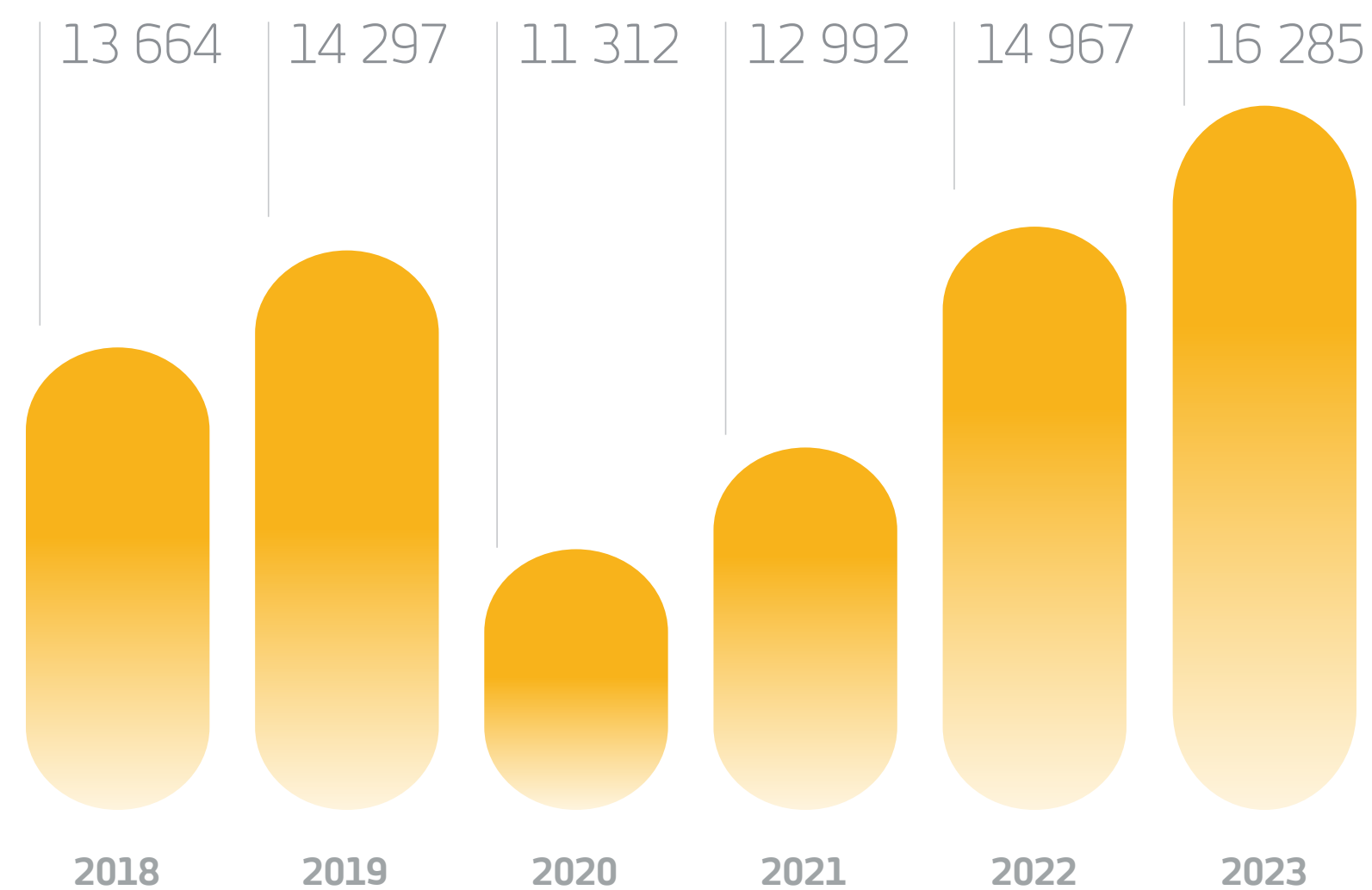






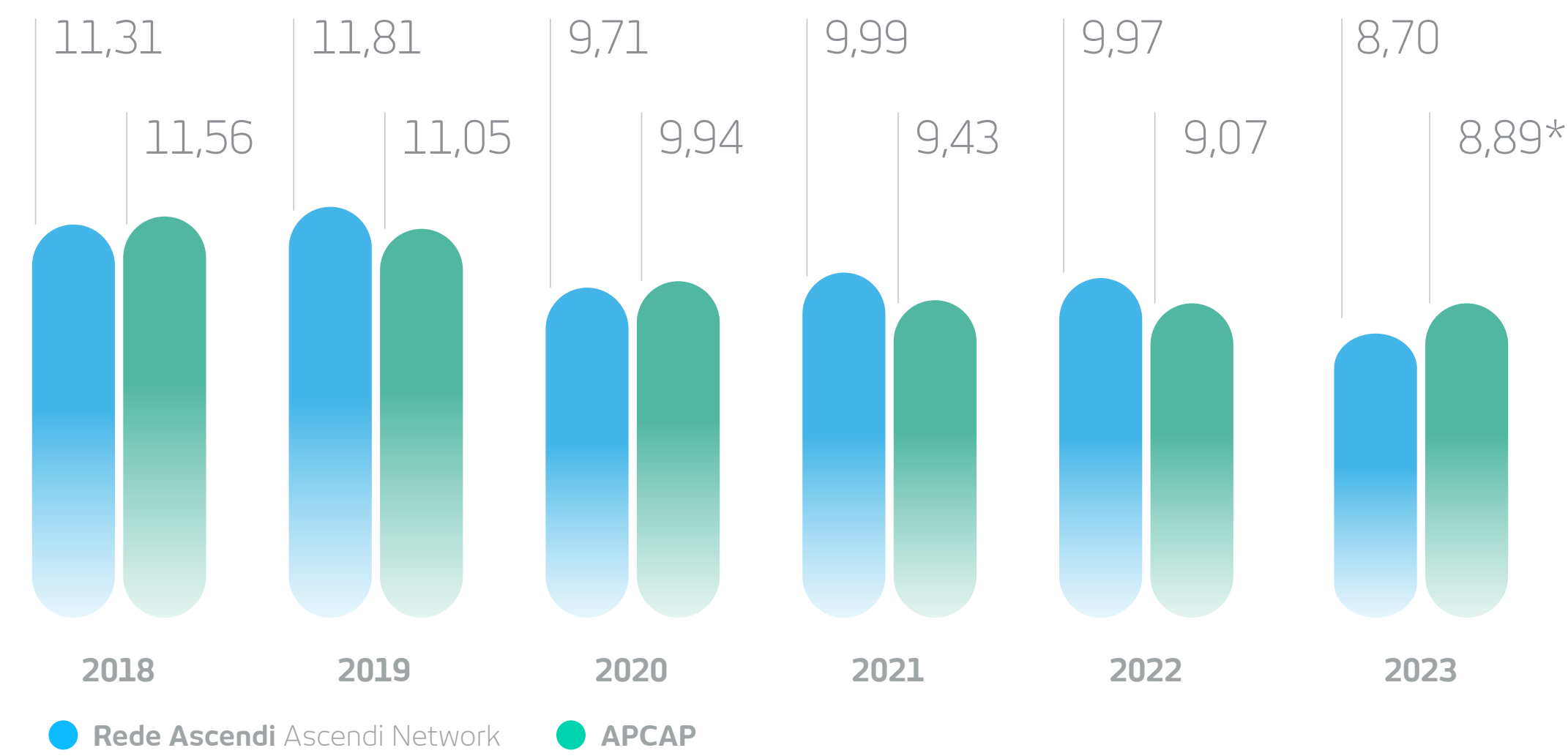
# Tráfego Médio Diário Anual (TMDA) — 2018 — 2023

Annual Average Daily Traffic (AADT)



# Índice de Sinistralidade (IS) — 2018 — 2023

Road Traffic Injury Rate (RTIR)



\* Valor provisório. Provisional figure.





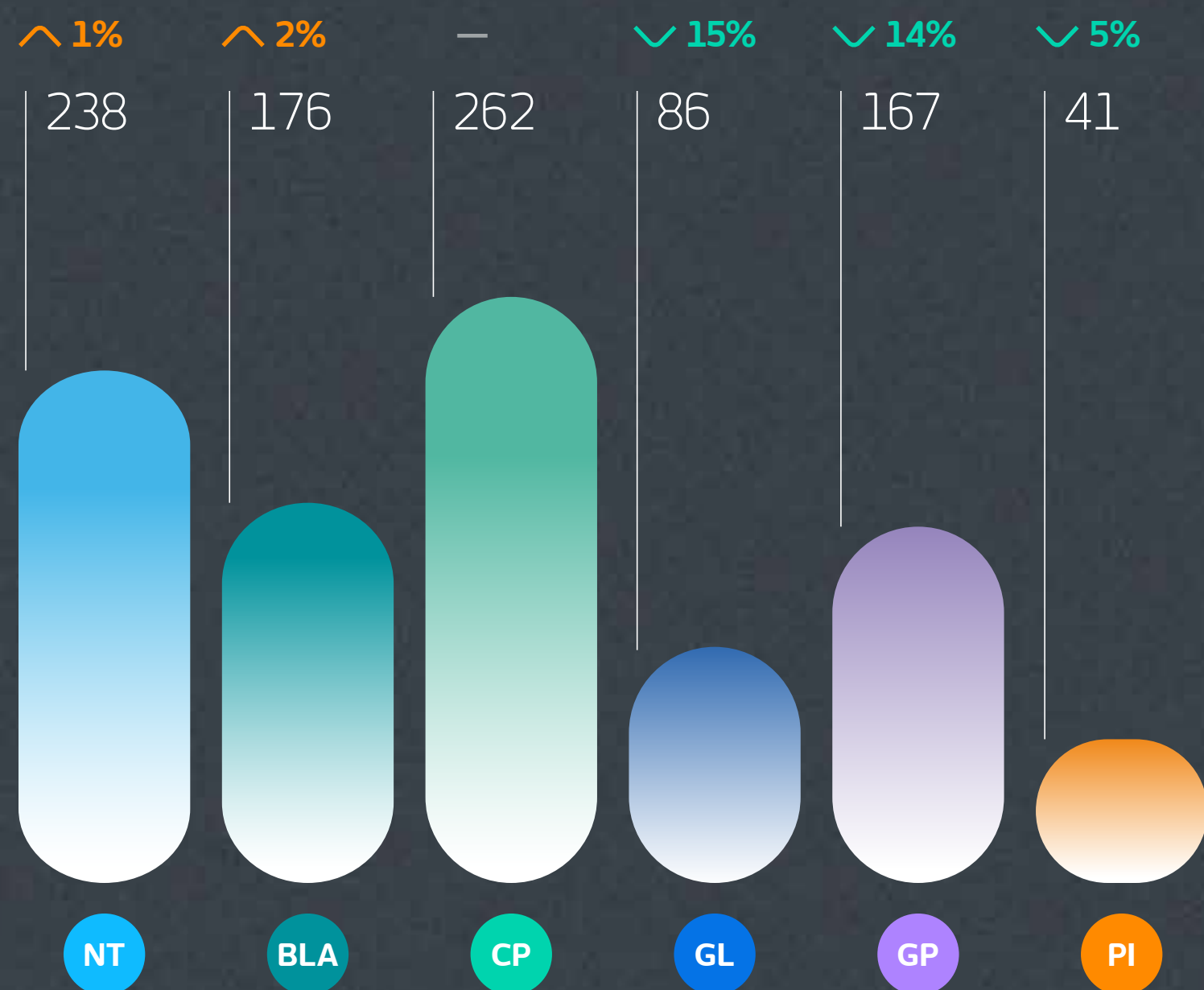
01

# Acidentes

2023

Accidents

02



03

04



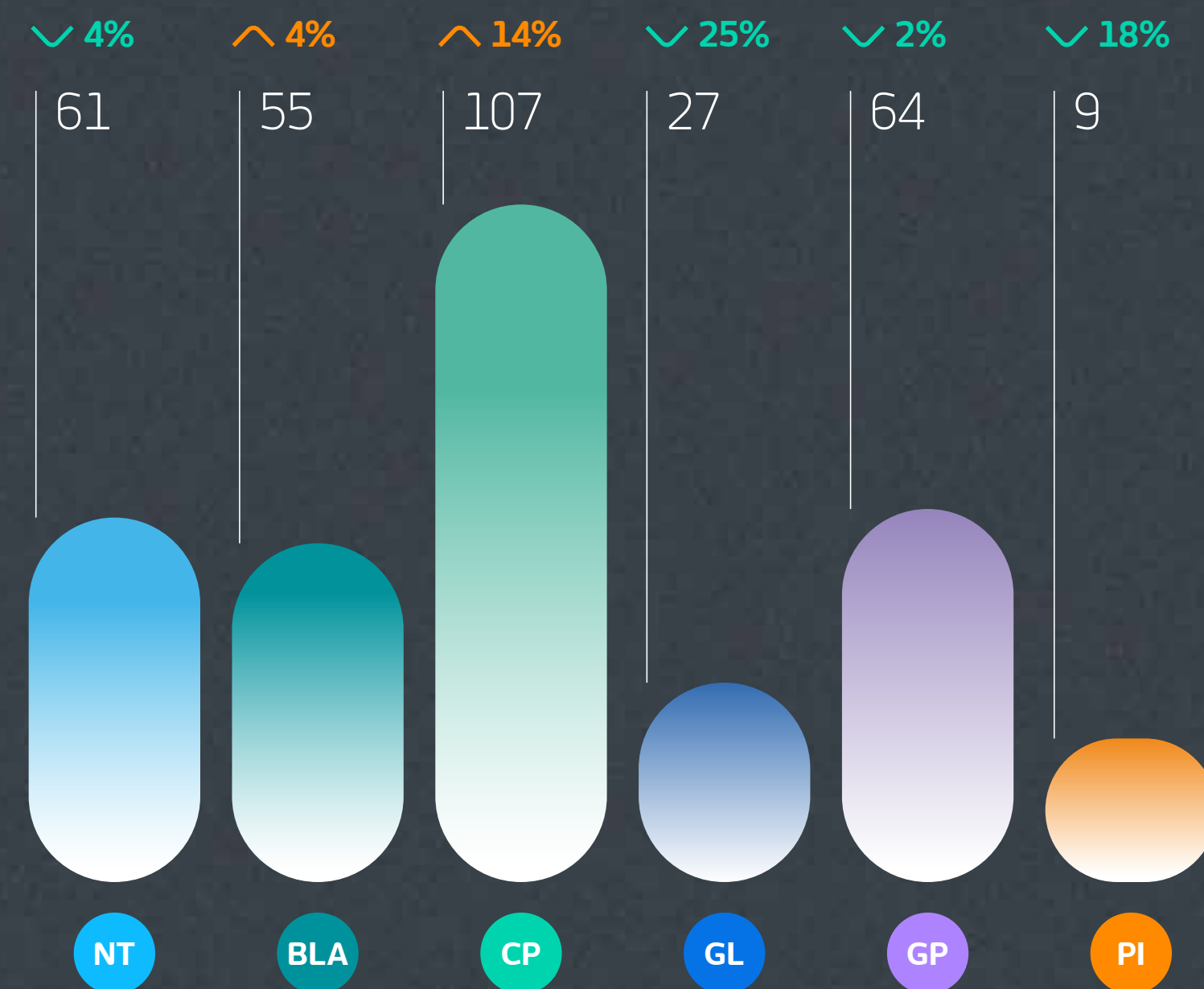
**970** Acidentes 2023  
Accidents 2023

2023 vs. Média (2018-2022) 2023 vs. Average (2018-2022)

# Acidentes c/ vítimas

2023

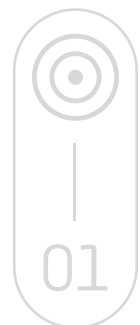
Injury accidents



**323** Acidentes c/ vítimas 2023  
Injury accidents 2023

2023 vs. Média (2018-2022) 2023 vs. Average (2018-2022)

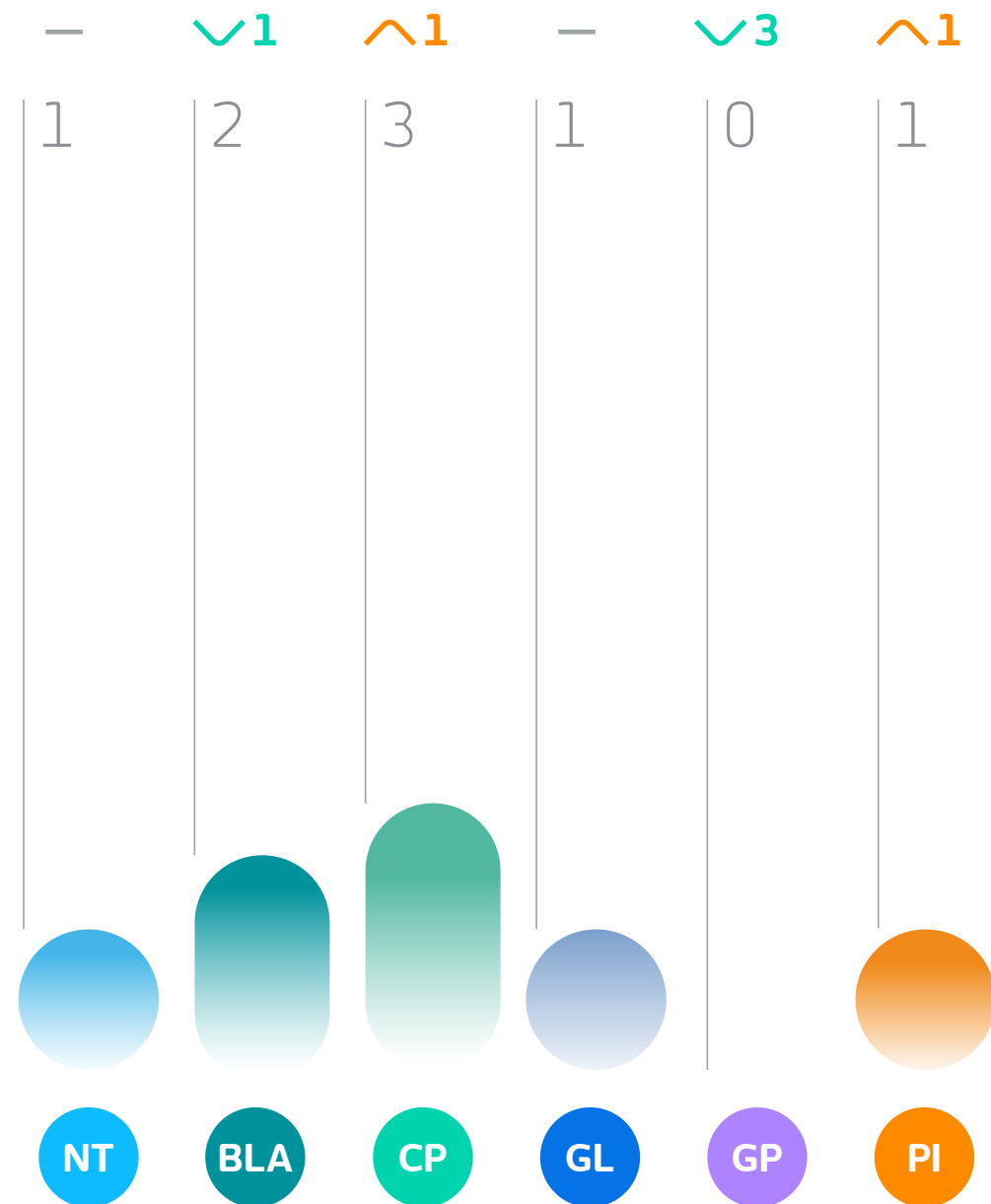




# Mortos

2023

Fatalities



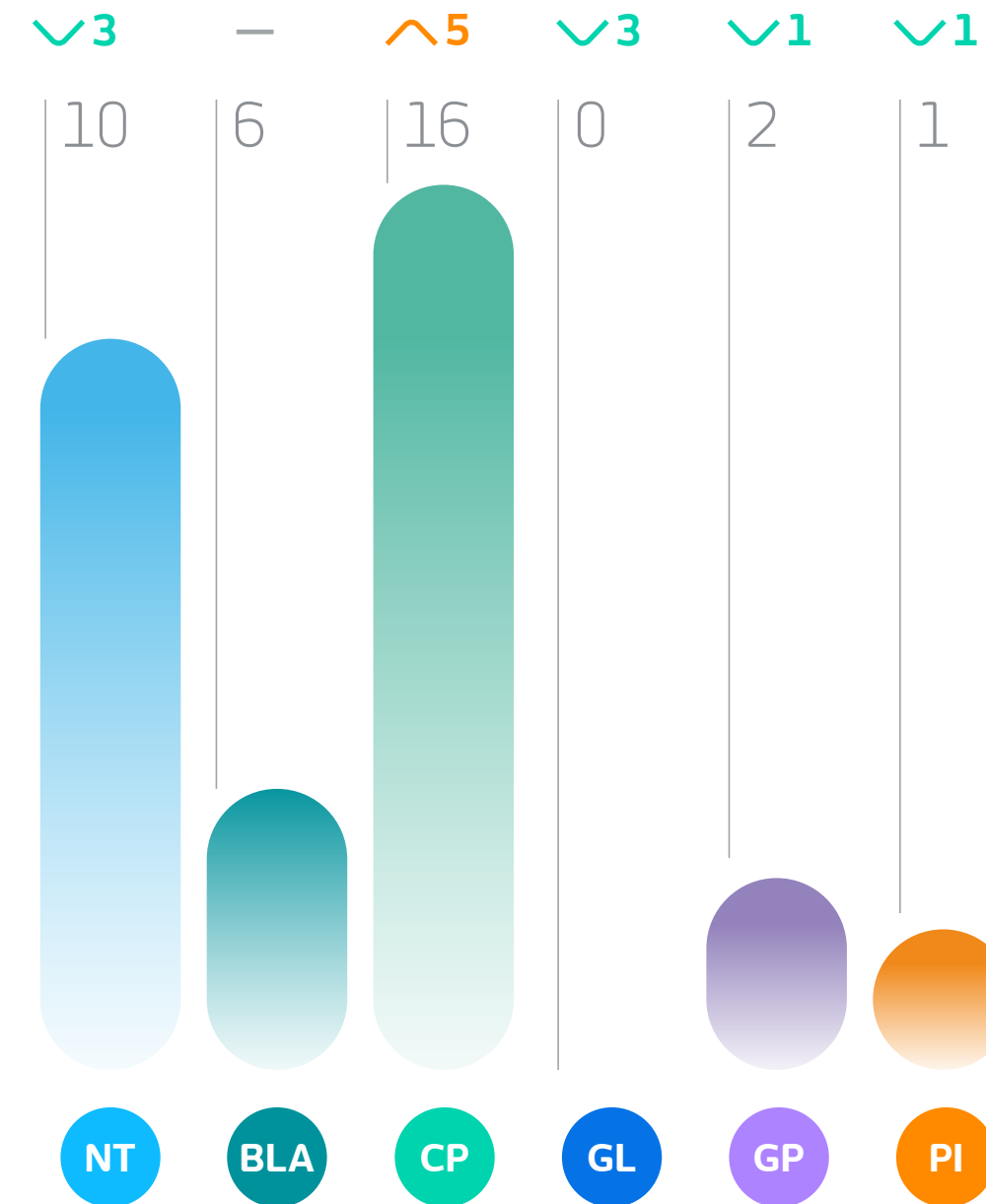
**8** Mortos  
Fatalities

2023 vs. Média (2018-2022) 2023 vs. Average (2018-2022)

# Feridos graves

2023

Seriously Injured



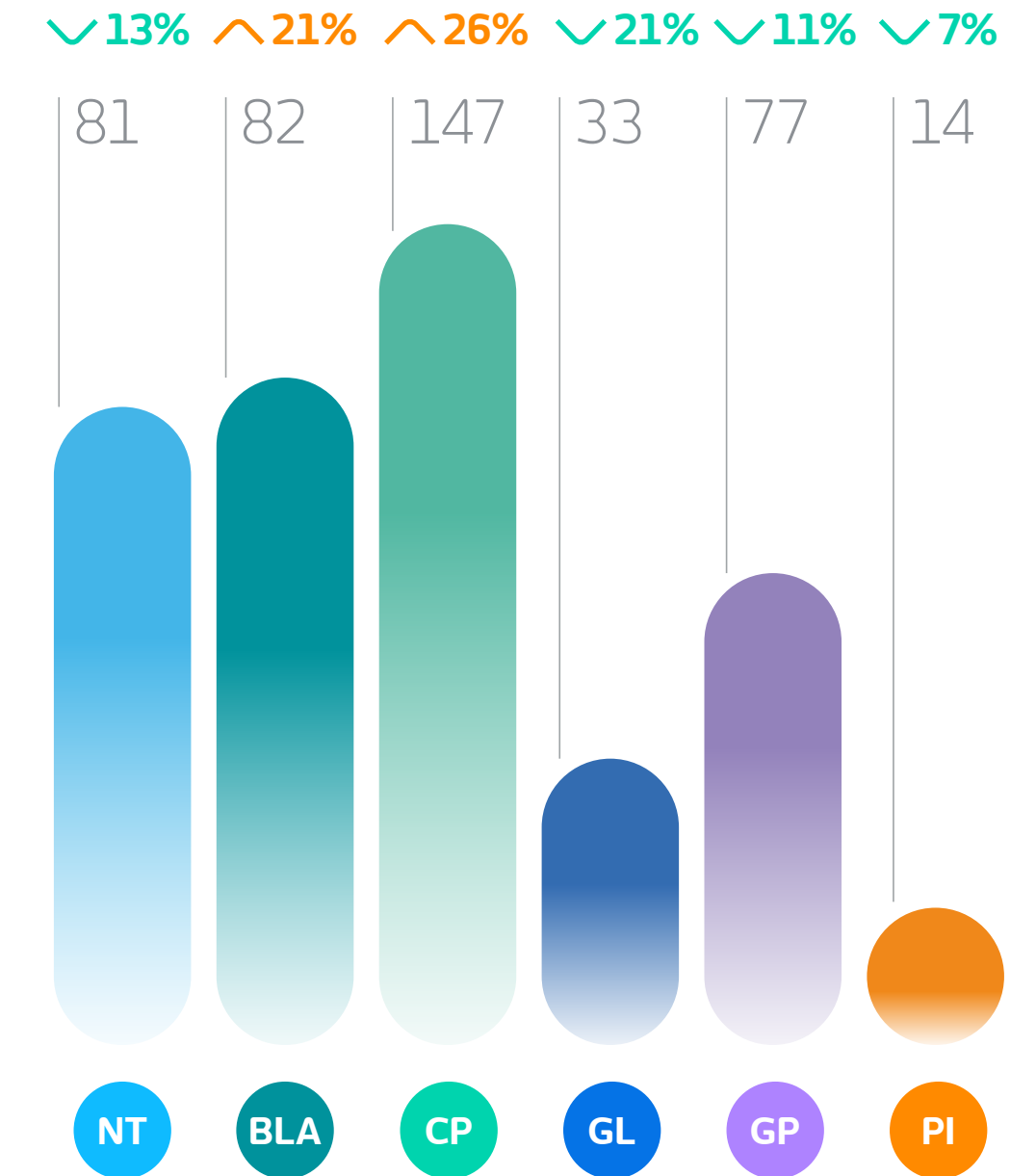
**35** Feridos Graves  
Seriously Injured

2023 vs. Média (2018-2022) 2023 vs. Average (2018-2022)

# Feridos ligeiros

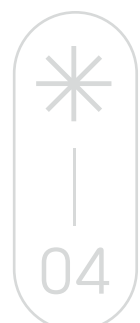
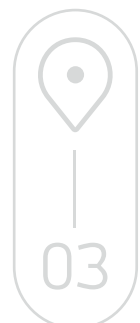
2023

Slightly Injured

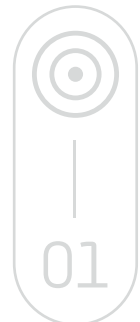


**434** Feridos Ligeiros  
Slightly Injured

2023 vs. Média (2018-2022) 2023 vs. Average (2018-2022)



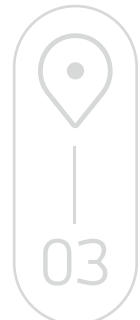




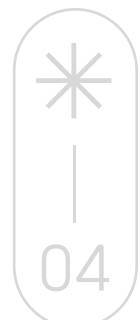
01



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# Tráfego Médio Diário Anual (TMDA)

2023

## Annual Average Daily Traffic (AADT)



### 16 285

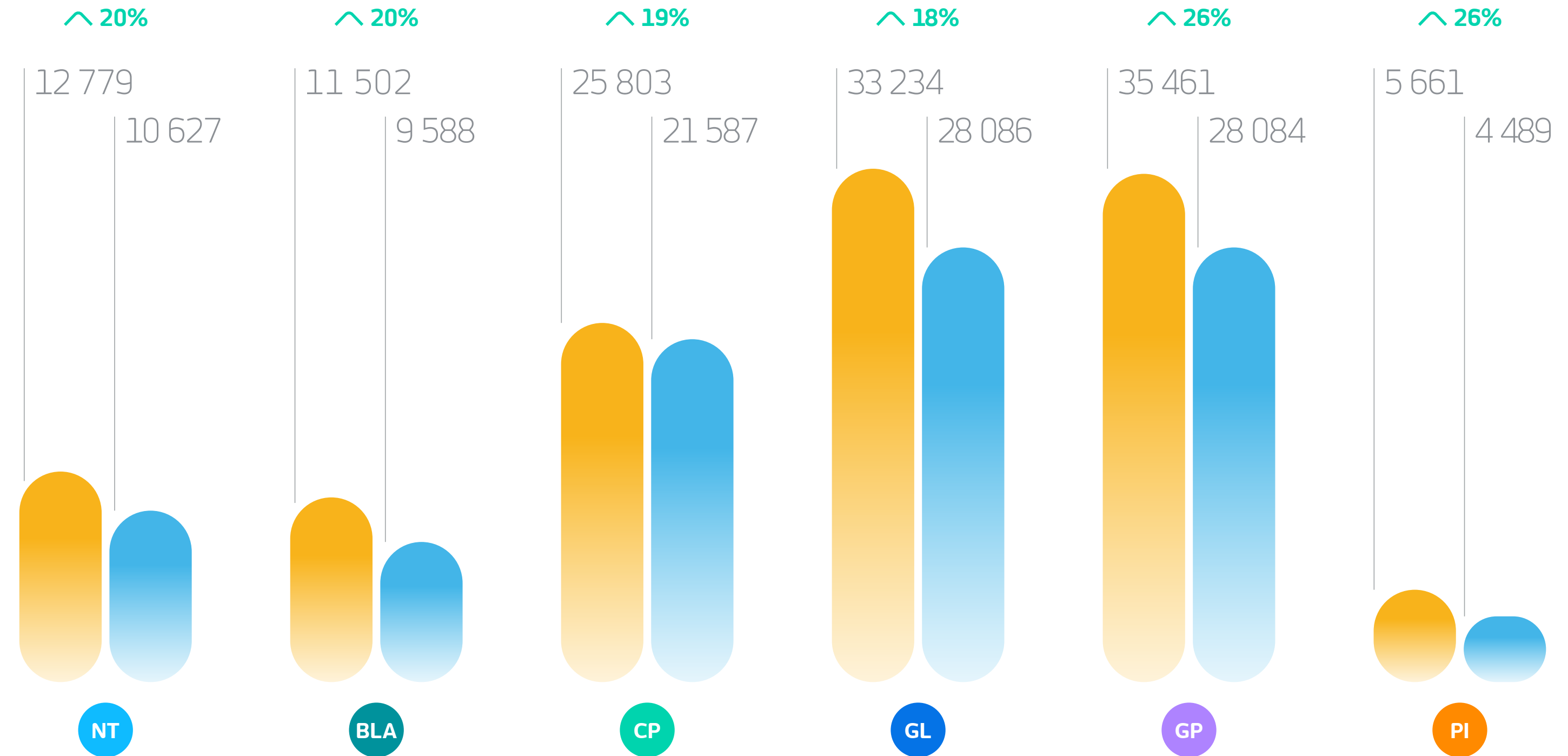
**TMDA Rede Ascendi 2023**  
(veículos/dia)

AADT Ascendi Network 2023  
(vehicles/day)

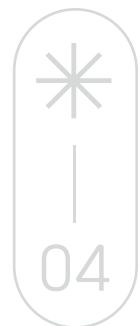
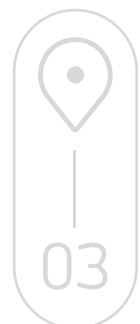
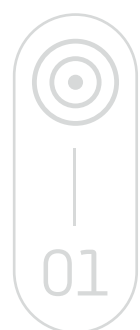
● **TMDA por concessão**  
AADT per concession

● **Média (2018-2022)**  
Average (2018-2022)

▲ **2023 vs. Média (2018-2022)**  
2023 vs. Average (2018-2022)







# Índice de Sinistralidade (IS)

2023

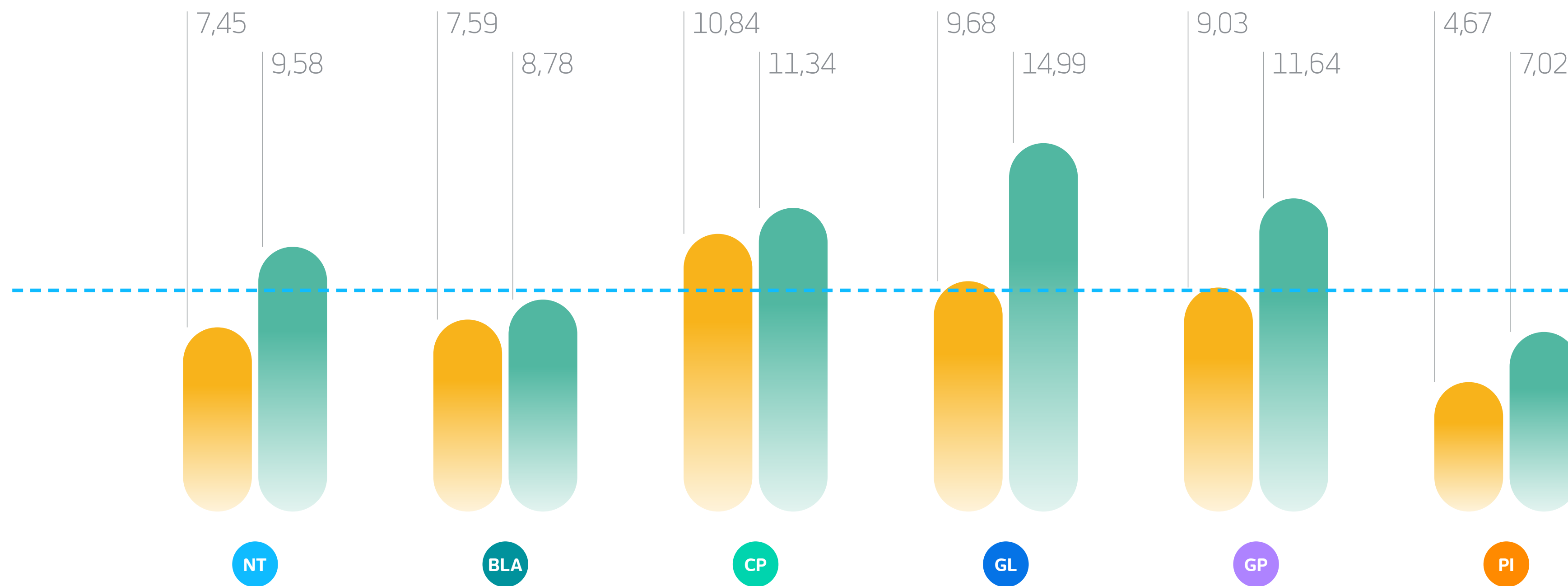
## Road Traffic Injury Rate (RTIR)



**8,89\***

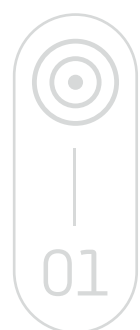
IS APCAP Anual 2023  
APCAP RTIR Annual 2023

- Ano 2023  
Year 2023
- Média (2018-2022)  
Average (2018-2022)
- APCAP Anual (2023)  
APCAP Annual (2023)



\* Valor provisório. Provisional figure.



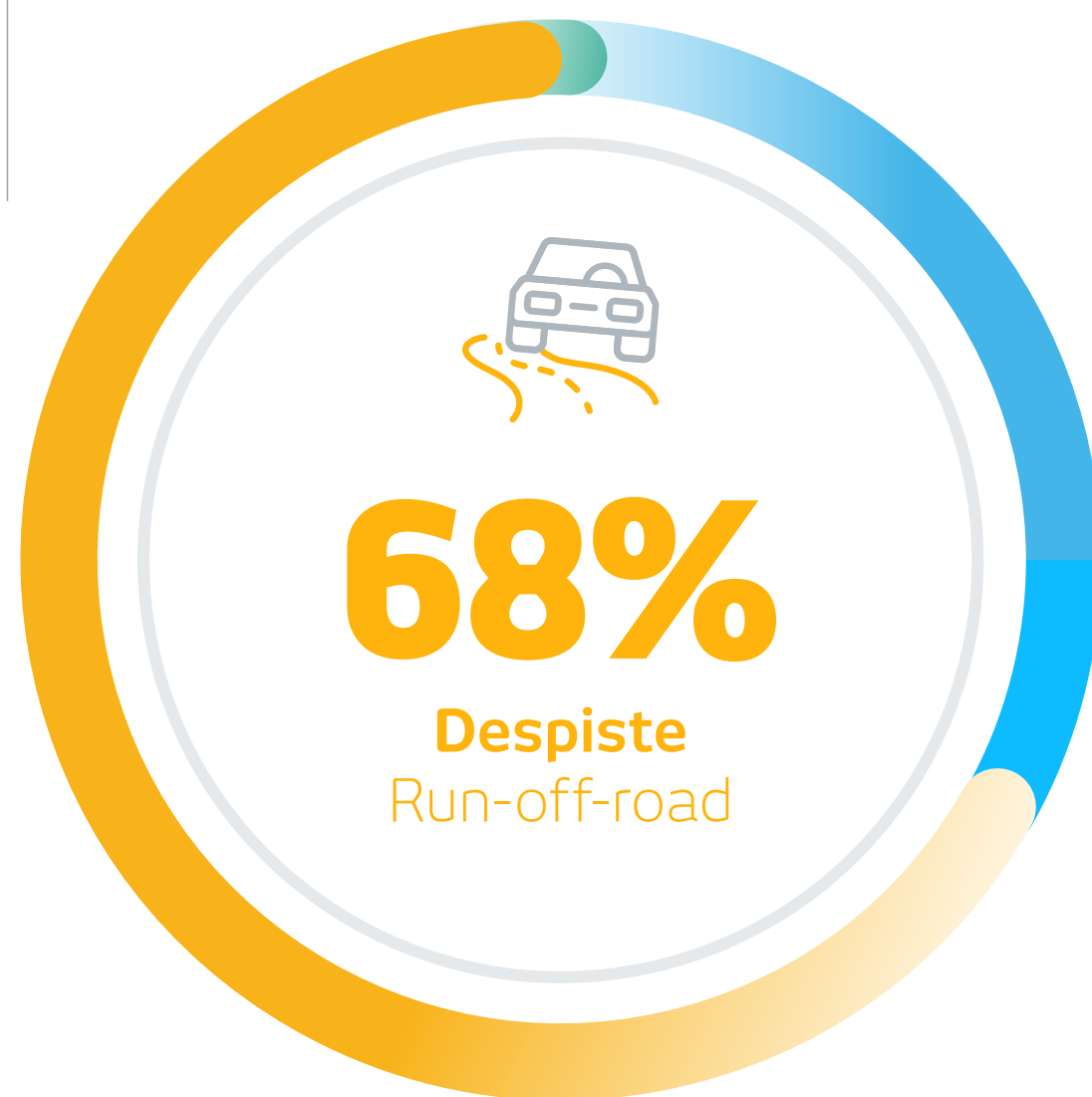


## Natureza dos Acidentes

2023

Accident type

**-3 p.p.**  
em relação a 2022  
comparing with 2022



**31%**  
Colisão  
Collision

**1%**  
Outros  
Others

**0**  
Indeterminada  
Undetermined

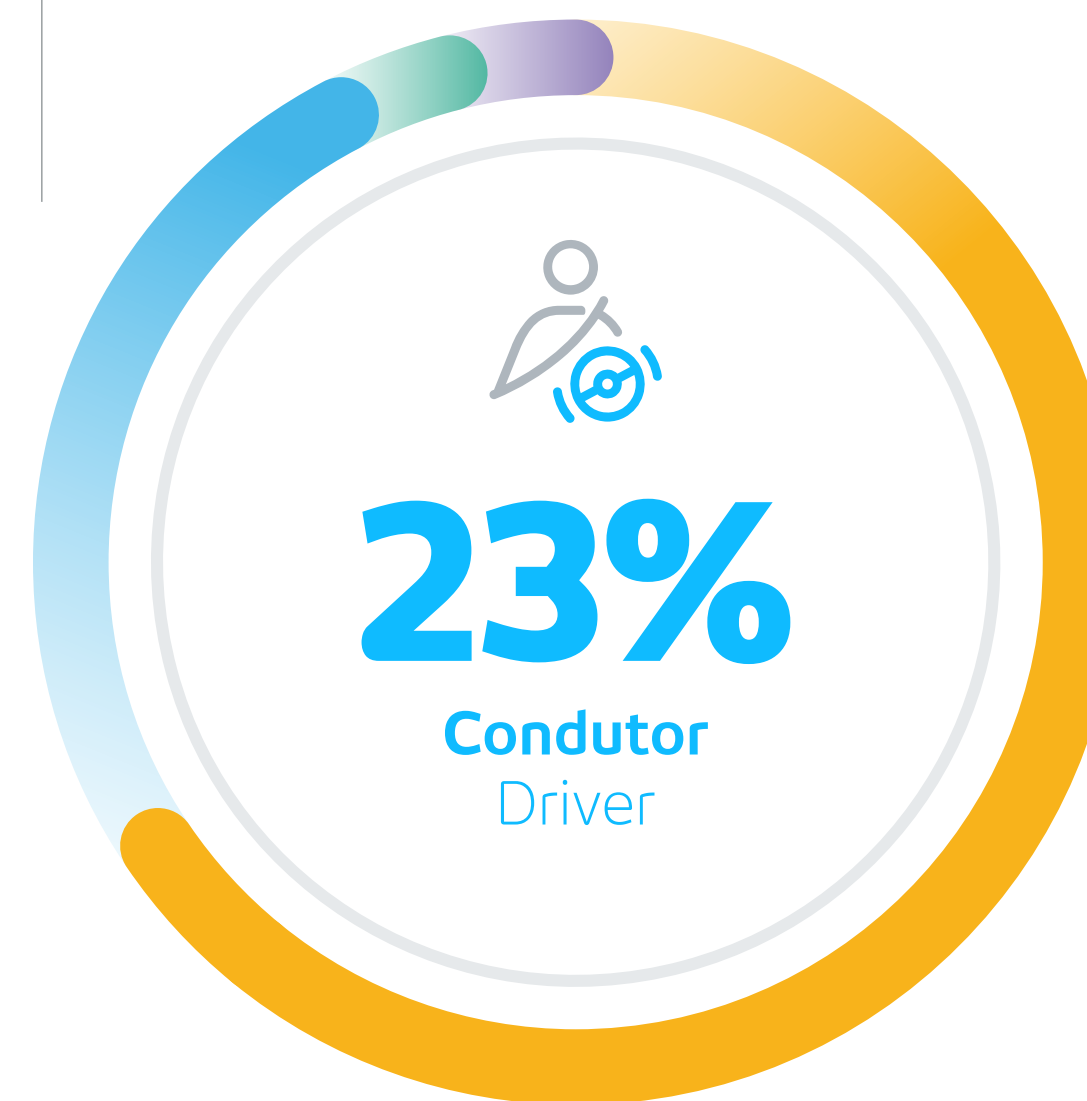


## Causa dos Acidentes

2023

Accident cause

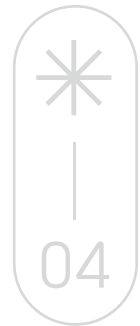
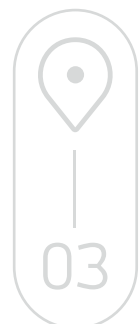
**= sem alteração/ "unchanged"**  
em relação a 2022  
comparing with 2022



**70%**  
Indeterminada  
Undetermined

**3%**  
Infraestrutura  
Infrastructure

**4%**  
Veículo  
Vehicle



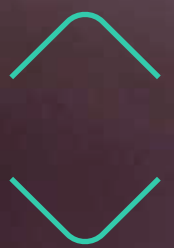




03

# Preparar as próximas viagens

Preparing the next journey



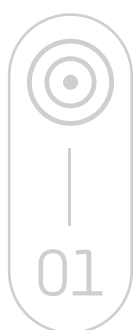
Conduzir o Futuro  
Driving the Future





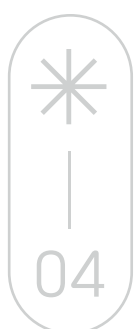
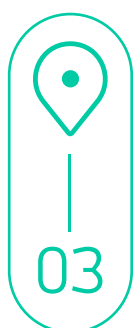
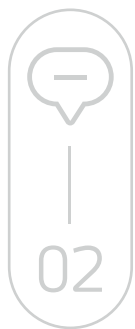
# Principais ações de SR

## Main Road Safety activities



Na Ascendi a segurança rodoviária é uma prioridade na nossa estratégia. O nosso compromisso é claro: trabalhar para reduzir o número de vítimas nas nossas estradas. Em 2023, prosseguimos com a implementação das várias ações do nosso Plano de Ação para Segurança Rodoviária 2020-2023 (PASR) e testemunhámos resultados relevantes na redução de vítimas

Road safety is a priority in Ascendi's corporate strategy. Our commitment is clear: work to reduce the number of casualties on our roads. In 2023 we have continued the implementation of the measures included in our Road Safety Action Plan 2020-2023 (RSAP) and achieved significant results in the reduction of victims.

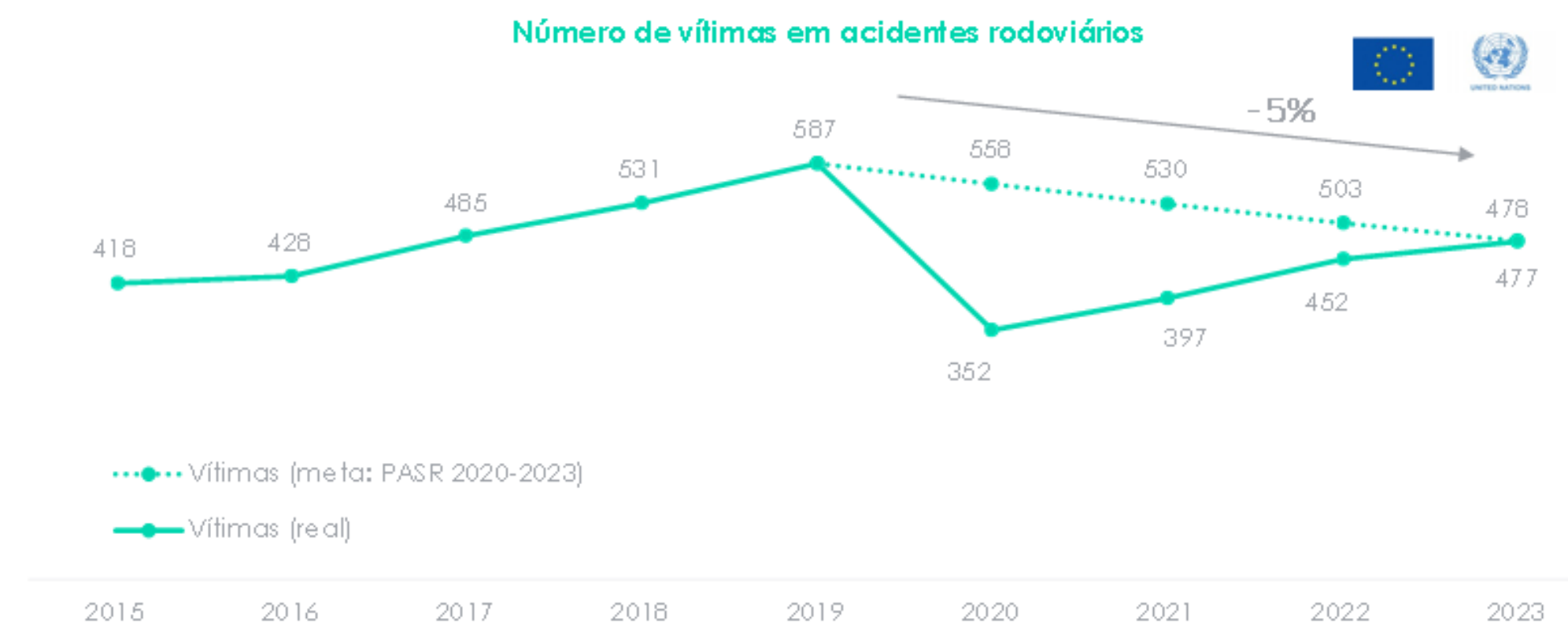


Video de apresentação PASR 2020-2023

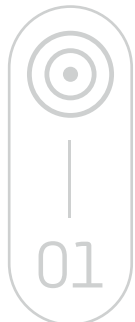
RSAP's 2020-2023 presentation video

Foi cumprida a meta anual de redução de vítimas de 5%/ano estabelecida no PASR 2020-2023 em todos os 4 anos da sua vigência, o que totaliza -670 vítimas desde o início da sua aplicação. Isto representa uma poupança económica global de 92,7 milhões de euros em relação ao cenário de manutenção do ano base/do-nothing (2019).

The number of casualties complied with the annual 5% reduction target set by the RASP 2020-2023 for every year of its implementation period. This represents an overall economic saving of 92,7 M€ against the base/do-nothing scenario (2019).







01

No final de 2023, o PASR 2020-2023 foi reconhecido pelo IRF (International Road Federation) como o melhor projeto na categoria de “Segurança” no âmbito dos “Global Road Achievement Awards 2023”



**ASCENDI'S ROAD SAFETY ACTION PLAN 2020-2023**

**ASCENDI**

ASCENDI is a motorway operator responsible for 627 km of network in Portugal that is divided in 6 concessions. The company's vision is to become an industry efficiency benchmark by providing an exceptional service to its clients and the community.

Traffic safety plays a decisive role in this context and lowering the number of accident casualties is one of the organization's top priorities.

Since the 2015's economic crisis, Portugal has been slowly recovering its performance and that was reflected in the general increase of traffic demand throughout the road network under the company's management.

Even though highways only represent about 7% of injury accidents in the country, ASCENDI reached a total of 587 casualties within its network in 2019.

Taking these numbers as the starting point and being aware that solutions to the problem would only be successful by applying a transversal, integrated and medium-term approach, ASCENDI decided to develop its Road Safety Action Plan 2020-2023 (RSAP).

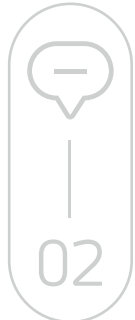
The Plan was divided in 3 sections:

- Characterization of the road safety scenario;
- Target setting for 5% annual casualties' reduction in the network;
- Definition of the Action Plan that included:

**SOMOS INVISÍVEIS PARA SI?**

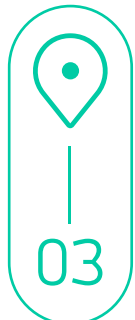
**José Revés**  
Chief Operations Officer, Ascendi

"The Ascendi's Road Safety Action 2020-2023 sets the targets and the roadmap of actions to achieve an ambitious reduction in road casualties. We are delighted with this GRAA and hope that this project may inspire the road community to join us in our commitment towards safer roads."

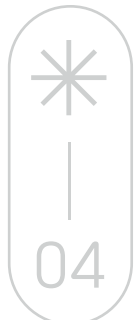


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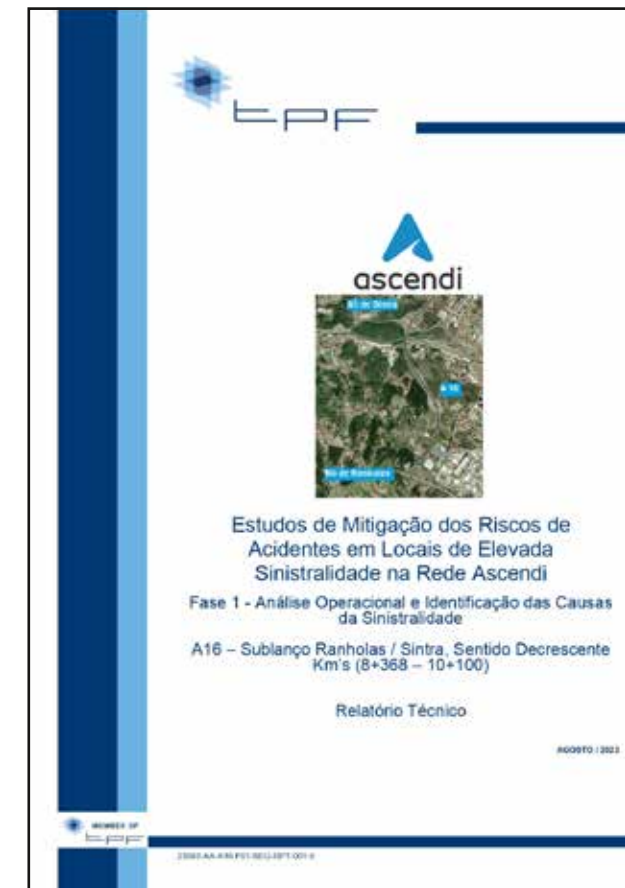
At the end of 2023, Ascendi's Road Safety Action Plan 2020-2023 won the "IRF Global Road Achievement Awards 2023" in the "Safety" category;



03



04



Desenvolvimento de estudos de mitigação de riscos de acidentes em zonas de elevada sinistralidade rodoviária nos seguintes locais:

Development of risk mitigation studies in areas with high concentration of road accidents in the following locations:

**A4** **Nó de Sendim – Ramo G (em curso)**  
Sendim's Node – Link G (ongoing)

**A7** **Sublanço Ribeira de Pena - Nó A7/A24 (Vila Pouca de Aguiar);**  
Subsection Ribeira de Pena / Nó A7/A24 (Vila Pouca de Aguiar)

**A11** **Nó de Guimarães Oeste (Ligação 1)**  
Guimarães Oeste's Node (Link 1)

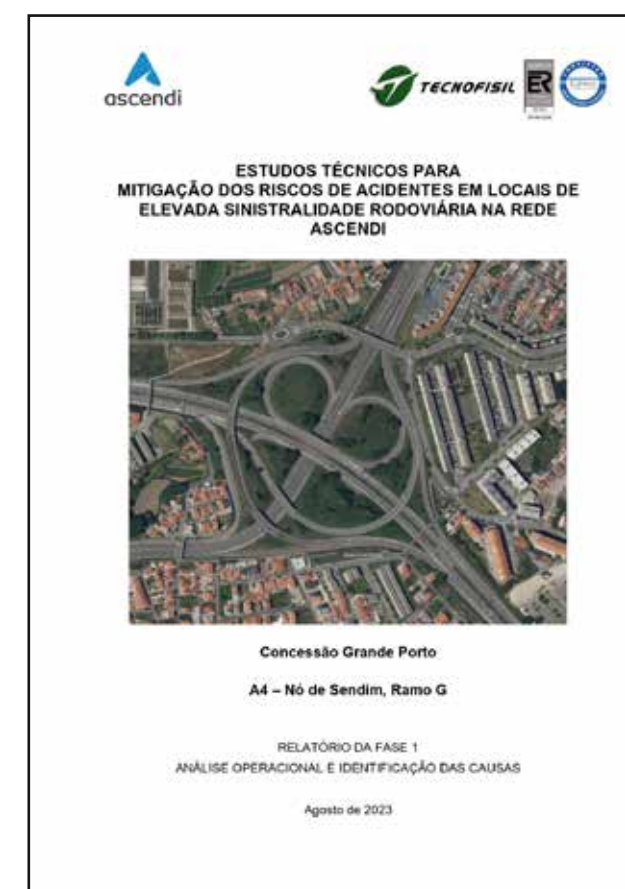
**A16** **Sublanço Sintra – Ranholas (em curso)**  
Subsection Sintra-Ranholas (ongoing)

**A16** **Nó da CREL - Ramo D**  
CREL's Node - Link D

**A25** **Nó de Fail - Ramo E**  
Fail's Node - Link E

**A29** **Sublanço Esmoriz - Espinho;**  
Subsection Esmoriz - Espinho;

**A41** **Sublanço Freixieiro - Aeroporto e Nó do Freixieiro – Ramo A (em curso)**  
Subsection Freixieiro - Aeroporto and Freixieiro's Node – Link A (ongoing)







**Implementação de medidas previstas e aprovadas nos estudos de mitigação dos riscos de acidentes em locais de elevada sinistralidade rodoviária concluídos em 2022 e 2023 nos seguintes locais:**

Implementation of the approved measures in the measures in the 2022 and 2023's risk mitigation studies in areas with high concentration of road accidents in the following locations:

**A4** Sublanço Ponte da Pedra - Águas Santas  
Subsection Miramar - (A29/A44);

**A7** Sublanços Seide - Ave - Selho e Nó do Ave;  
Subsections Seide - Ave - Selho and Ave's Node;

**A7** Sublanço Fafe Sul - Basto;  
Subsection Fafe Sul - Basto;

**A7** Nó de Calvos - Ramos B e C (parcial);  
Calvos' Node - Links B and C (parcial);

**A7** Sublanço Carvoeiro - Talhadas;  
Subsection Carvoeiro - Talhadas;

**A7** Sublanço Ribeira de Pena - Nó A7/A24 (Vila Pouca de Aguiar);  
Subsection Ribeira de Pena / Nó A7/A24 (Vila Pouca de Aguiar)

**A16** Nó do Linhó (parcial);  
Linhó's Node (parcial);

**A16** Nó de Lourel - Ramo B (parcial);  
Nó de Lourel - Ramo B (parcial);

**A16** Nó da CREL - Ramo D (parcial);  
CREL's Node - Link D (parcial);

**A25** Sublanço Caçador - Fagilde  
Subsection Caçador / Fagilde

**A25** Sublanço Fagilde - Mangualde  
Subsection Fagilde / Mangualde

**A25** Nó com EN2  
EN2's Node;

**A29** Sublanço Miramar - (A29/A44);  
Subsection Miramar / (A29/A44);

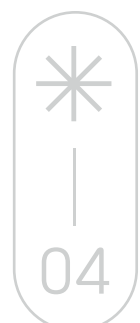
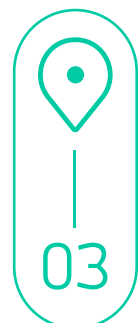
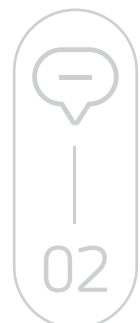
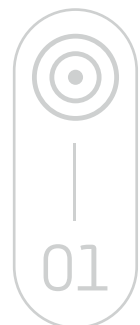
**A29** Sublanço (A29/A44) - Canelas;  
Subsection (A29/A44) - Canelas

**A29** Sublanço Hospital - Freixo (A20);  
Subsection Hospital - Freixo (A20)

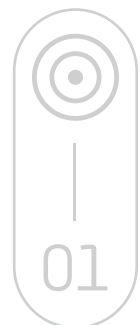
**A29** Sublanço Esmoriz - Espinho;  
Subsection Esmoriz - Espinho

**A44** Sublanço Francelos (EN109) - Valadares Norte  
Subsection Francelos (EN109) - Valadares Norte

**A44** Sublanço Madalena - Coimbrões;  
Subsection Madalena - Coimbrões

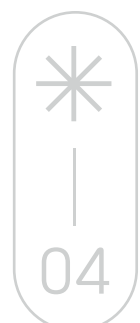
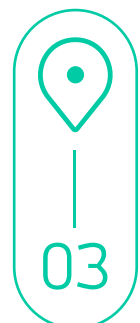
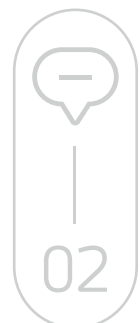




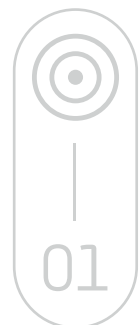


**Continuação do desenvolvimento e implementação do Programa de Substituição de Barreiras de Segurança da rede Ascendi que visa a revisão e upgrade destes dispositivos na rede. Em 2023 foi feito um investimento de cerca de 3M€ que permitiu a substituição de cerca de 37 Km de barreiras.**

Continued development and implementation of Ascendi's Safety Barrier Upgrading Program, that aims to review and upgrade these equipments. In 2023 Ascendi invested about 3 M€ for the replacement of approximately 37 Km of safety barriers.

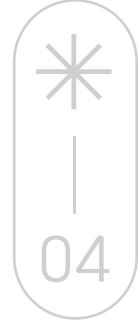
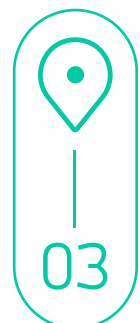
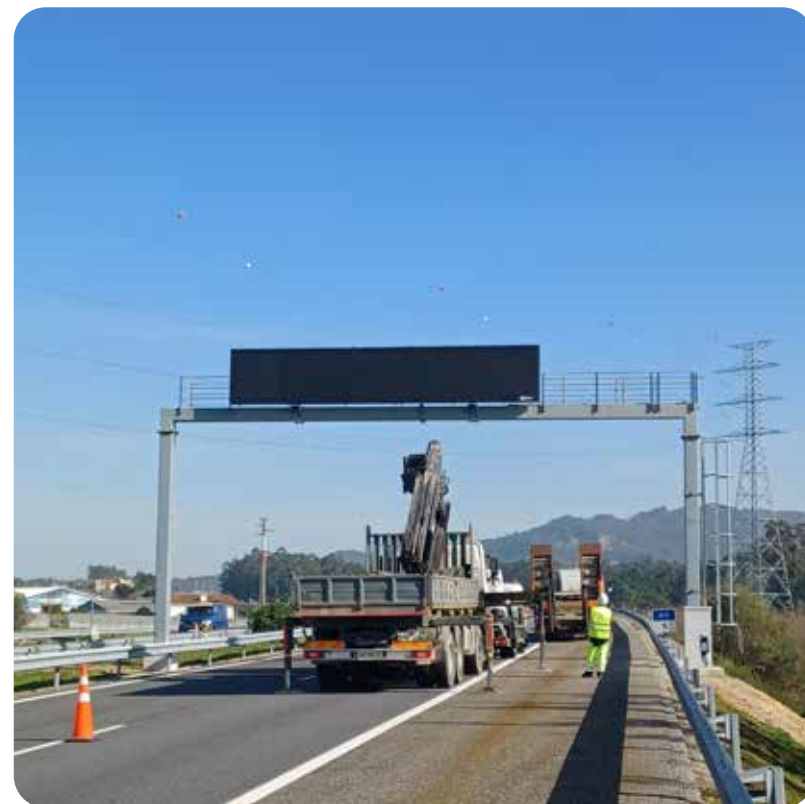
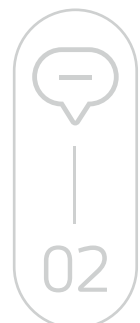






**Implementação de equipamentos de telemática na Concessão Norte: 15 câmaras vídeo (PTZ) e 6 Painéis de Mensagem Variável:**

Implementation of ITS in the North Concession: 15 video cameras (PTZ) and 6 Variable Message Signs (VMS):



**Desenvolvimento da proposta e realização de testes-piloto para avaliação da eficácia da aplicação de painel dinâmico luminoso de informação de velocidade e bandas sonoras amovíveis no aviso da existência de zona de trabalhos na via nos seguintes locais:**

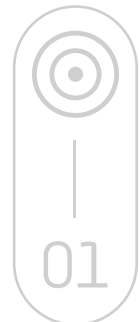
Development of the proposal and implementation of pilot tests to evaluate the effectiveness of the application of a dynamic speed sign and rumble strips on road work zones in the following locations:

**A25** Ligação 1 do Porto de Aveiro / Ponte da Barra, SC (apenas painel dinâmico luminoso);  
Link 1 to Porto de Aveiro / Barra's Bridge (dynamic speed sign)

**A7** Sublanços Seide - A3/A7 - Famalicão, SD (painel dinâmico luminoso e bandas sonoras amovíveis).  
Subsections Seide - A3/A7 - Famalicão (dynamic speed sign and rumble strips).







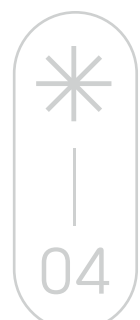
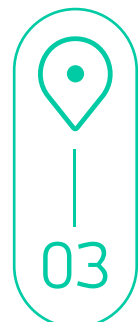
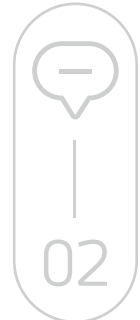
**Promoção da 3ª edição da iniciativa de educação para a Segurança Rodoviária “Patrulha Júnior” que contou com a presença de crianças distribuídas por várias sessões de teatro realizadas em 4 municípios portugueses.**

Promotion of the 3<sup>rd</sup> edition of the Road Safety education initiative “Junior Patrol” that was attended by children distributed across several theater sessions held in 4 Portuguese municipalities.



**Desenvolvimento e divulgação do Anuário de Segurança Rodoviária 2022.**

Development and publication of the Road Safety Yearbook 2022



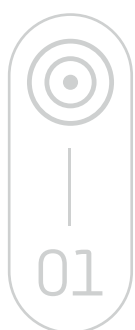
**Desenvolvimento e promoção do Anuário de Velocidades 2022 da Ascendi, em parceria com o Instituto para a Construção Sustentável (FEUP).**

Development and promotion of the 2022’s Speed Yearbook in partnership with the Institute for Sustainable Construction (FEUP).



# Glossário

## Glossary

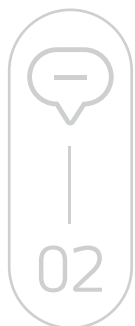


### Acidente

Ocorrência na via pública (na área Concessionada) ou que nela tenha origem, e na qual pelo menos um veículo em movimento esteja implicado, e que tenha como consequência uma ou várias vítimas (mortos, feridos graves ou ligeiros), e/ou, provoque danos materiais na infraestrutura ou no(s) veículo(s), não podendo pelo menos um destes prosseguir pelos seus próprios meios.

### Accident

Road incident occurred within the concession's area involving, at least, one moving vehicle and originating, at least, one casualty (fatality, seriously or slightly injured) or damaged vehicle(s) and/or infrastructure. Additionally, at least one of involved vehicles must be unable to proceed movement by its own means.

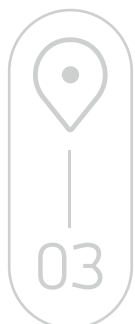


### Acidente com vítimas

Acidente do qual resulte um ou mais mortos ou feridos.

### Injury accidents

Accident involving at least one fatality or injured person.

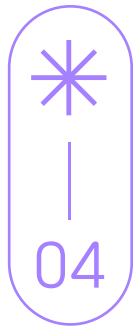


### APCAP

Associação Portuguesa das Sociedades Concessionárias de Auto-Estradas ou Pontes com Portagens.

### APCAP

Association of Portuguese Concession Companies of Toll Motorways or Bridges



### Ferido Grave

Toda a pessoa (vítima) que, em consequência do acidente, tenha sofrido lesões que a impossibilitem de entrar na ambulância pelos próprios meios.

### Seriously injured

Road accident casualty whose injuries' unable him/her to enter an ambulance by his/her own means.

### Ferido Ligeiro

Toda a pessoa (vítima) que, em consequência do acidente, tenha sofrido danos corporais que não a impossibilite de entrar na ambulância pelos próprios meios.

### Slightly injured

Road accident casualty whose injuries' do not unable him/her to enter an ambulance by his/her own means.

### Índice de Sinistralidade

$$= \frac{\text{Acidentes com Vítimas}}{\text{Percursos Efetuados}}$$

### Road Traffic Injury Rate

$$= \frac{\text{Injury accidents}}{\text{Travel distance}}$$

### Morto ou Vítima Mortal

Toda a pessoa cujo óbito ocorra no local do acidente, como consequência deste.

### Fatality

Person deceased in the accident location as a direct result of a road accident.

### Percursos efetuados (10<sup>8</sup> veic x km)

$$= \frac{\text{TMD} \times \text{n}^\circ \text{ km} \times \text{n}^\circ \text{ dias (período)}}{10^8}$$

### Travel distance (10<sup>8</sup> veh x km)

$$= \frac{\text{ADT} \times \text{nr. of kilometers} \times \text{nr. of days (period)}}{10^8}$$

### TMDA (veículos)

Tráfego Médio Diário Anual

### AADT (vehicles)

Annual Average Daily Traffic

### Vítima

Ser humano que em consequência de acidente sofra danos corporais.

### Casualty

Human being who as a result of an accident suffers bodily harm.





Anuário  
**Segurança  
Rodoviária  
2023**

ROAD SAFETY YEARBOOK 2023

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