DEPARTMENT FOR INFRASTRUCTURE, INFORMATIVE AND STATISTICAL SYSTEMS

GENERAL DIRECTORATE FOR THE ROADS AND MOTORWAYS AND FOR THE SUPERVISION AND THE SAFETY OF ROAD INFRASTRUCTURES

Division 7 – Inspection functions and competent unit for DLgs 35/2011

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- **The Italian Ministry of Infrastructure, set up a structure which performs the role of Competent unit as expected by Article 2 of the European Directive 2008/96/ EC (implemented in Italy by the Legislative Decree 35/2011), with the role to supervise on the correct application of the directive and, limited to the TEN network, ensures its application.**

- **The Ministerial Decree 02/05/2012 drawn up the "Guidelines for the management of road infrastructure safety", that explain the criteria and methods for carrying out road safety audit on projects and safety inspections on existing infrastructures and also the execution of the process to rank the safety of the existing road network.**

- **Specifically for the execution of safety inspections (art.6 of 2008/96/EC), the Guidelines specify the methods to conduct road safety inspections and the form to fill out for the various types of roads.**

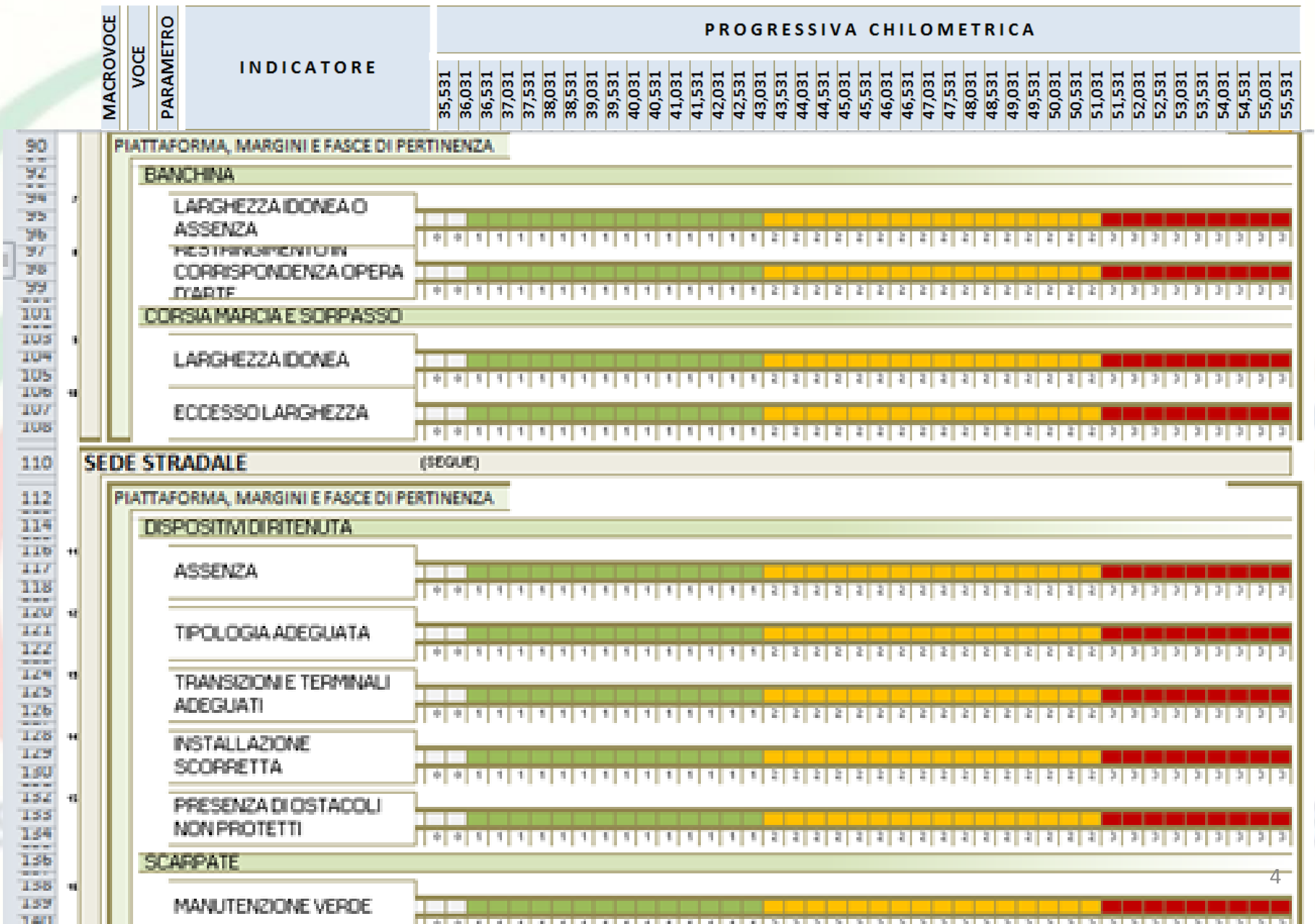
- **In 2019, Italy conducted the first inspection program covering 6000 km of the TEN network, with the involvement of 51 road safety experts. This program can be considered a first experimentation activity, it represents the first phase of road safety inspections on the network by applying the current rules.**

- **The Guidelines in force contain a general inspection sheet to fill out for the main parameter of the street, and punctual inspection sheet to describe critical points (point with large number of accident occurred or identified by the inspectors as point potentially dangerous).**

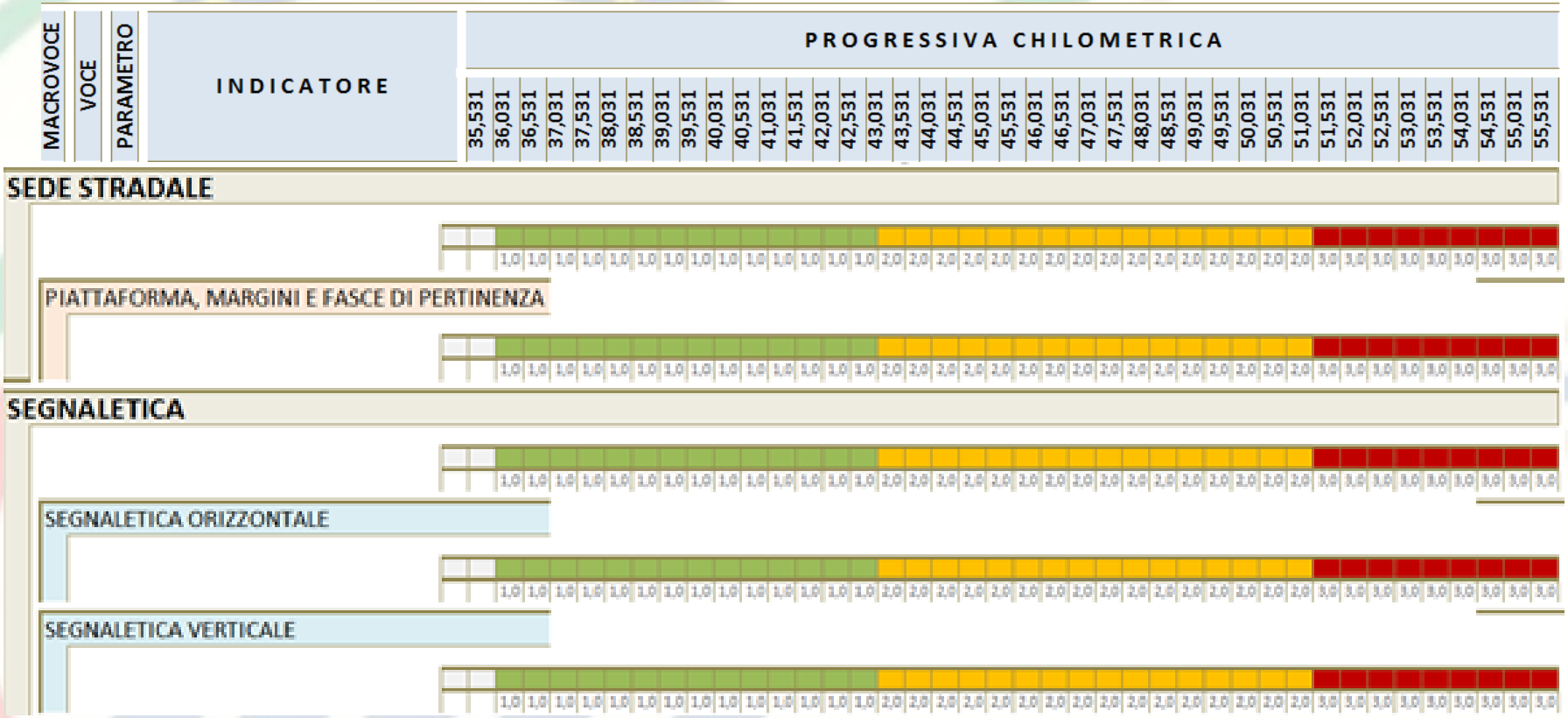
- **To rise a good summary of the road parameters, we analyze each 200m/500m (depending on urban or sub urban road). Our internal structure proposed to express a judgment on each individual parameter (micro item) with a quantitative synthetic assessment of the risk of danger value from 1 to 3. This value combine both the recurrence (frequency) and the severity level of the section parameter, and will take on the following meanings (the value 0 will indicate the undetectable quantity):**

0		UNDETECTABLE QUANTITY
1		DANGER RISK LOW TO MODERATE
2		DANGER RISK MODERATE TO HIGH
3		DANGER RISK HIGH TO VERY HIGH

- **The aim is to report the inspection data on the road plan and later on in a map to detect immediately the trend of the parameter along the length of the road**



- **Next step: to combine the micro-items in the macro items (ex.flooring, signs etc.) of the sheet and check their progress along the route**.



- One of the purposes of the study is to develop a method that allows the combination of the various micro-voices and macro-voices in order to obtain the *mapping of representative indexes*; one of this is the "level of Risk of the Road Infrastructure", **RIS**, as summary of all the macro-voices or for a single macro-item of the road section detected.
- The RIS will represent an essential risk index of the road infrastructure from the point of view of the risk of accidents in existing roads.

- **The planimetric trend of the RIS is the easiest way to combine and have a standard of the assessment of road infrastructure safety and therefore also allows an immediate comparison of the safety degree of a large number of kilometers of road network.**
- **An important aspect of RIS is the possibility to evaluate the state of maintenance of the road network and therefore also allows an immediate comparison of the safety degree of wide road network.**

- **Based on the results of the inspections, once operative, the classification of the sections with high potential of accidents will be prepared and the trend of the RIS will be compared with the trend of the accident (at least in five years along the same km of road).**

- **In the task of assignment, the inspector shave to pay particular attention to the sections where have occurred the large number of accident in proportion to the traffic flow. Accidents' data will be provided by the concerned managing authorities.**

- The inspectors have to suggest the proposals for the easiest maintenance work also with a rough estimate of the costs for planning future investments necessary to decrease the RIS level, listed according to three different priority levels:
- **PRIORITY MITIGATION 1**: solutions to serious deficiencies related with design and management standards. **Low construction cost, great increase in road infrastructure safety.**
- **PRIORITY MITIGATION 2:** solutions that contribute effectively to improving safety, but which require planning and programming. They represent proposals for work that involve infrastructure measures linked to **more significant economic commitments**.
- **PRIORITY MITIGATION 3:** This class includes solutions that involve a further improvement in road infrastructure safety. They represent intervention proposals that require planning and programming as they are linked to **significant economic commitments**.

- **The next step** will be **the implementation** of the **relevant inspection sheets** and **the identified RIS index**.