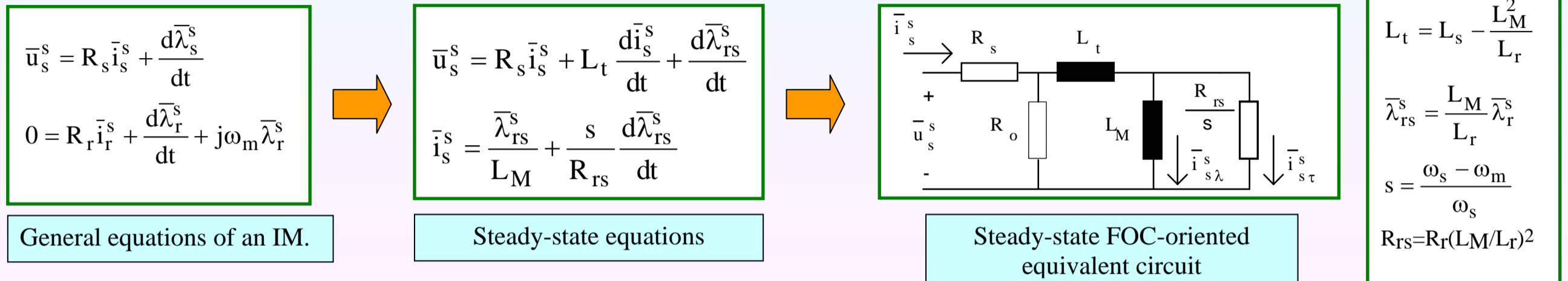


# Essentials of IM Parameters Measurement for FOC Drives Tuning

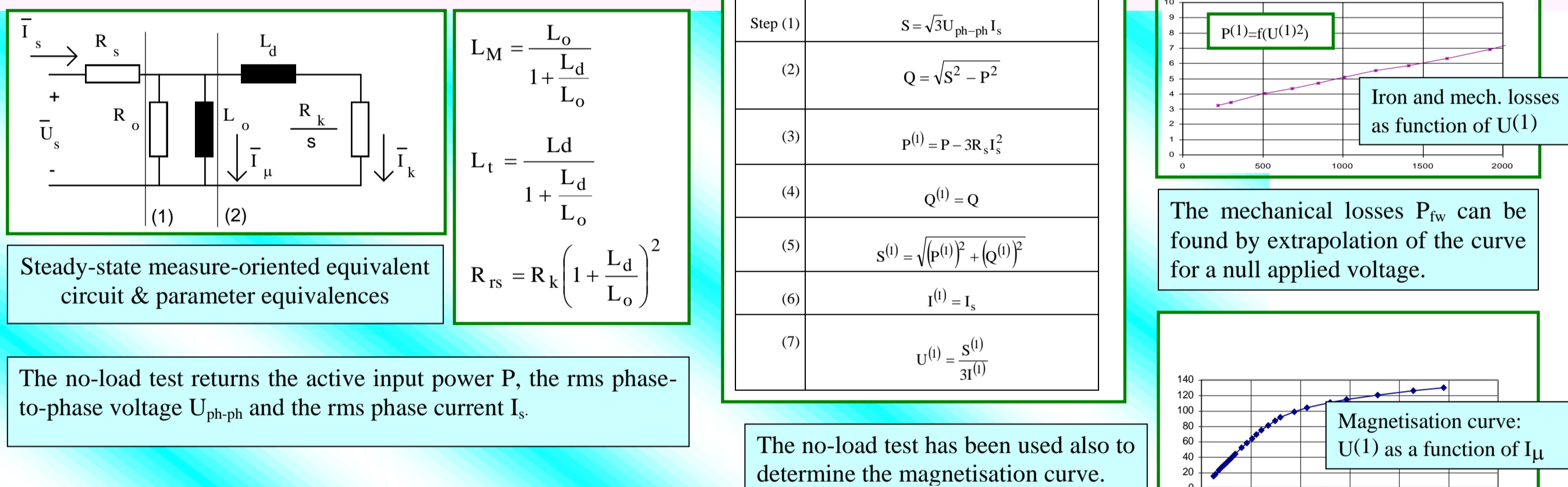
## Summary

- The paper deals with a simple **measurement procedure** for characterising an induction motors **according to the requirement that arise from the drive manufacturers and/or users**.
- The proposed measurement procedure requires only a **conventional instrumentation** and a test bench equipped with a brake, but without torque measurement facility.
- Therefore, any motor manufacturer can perform it, without the need of a specific inverter drive.
- This simple and reliable procedure should represent a smart-testing tool that gives the motor manufacturer the chance to complete the product with a comprehensive drive-oriented motor nameplate, in a way similar to that widely used for PM synchronous motors (brushless motors).

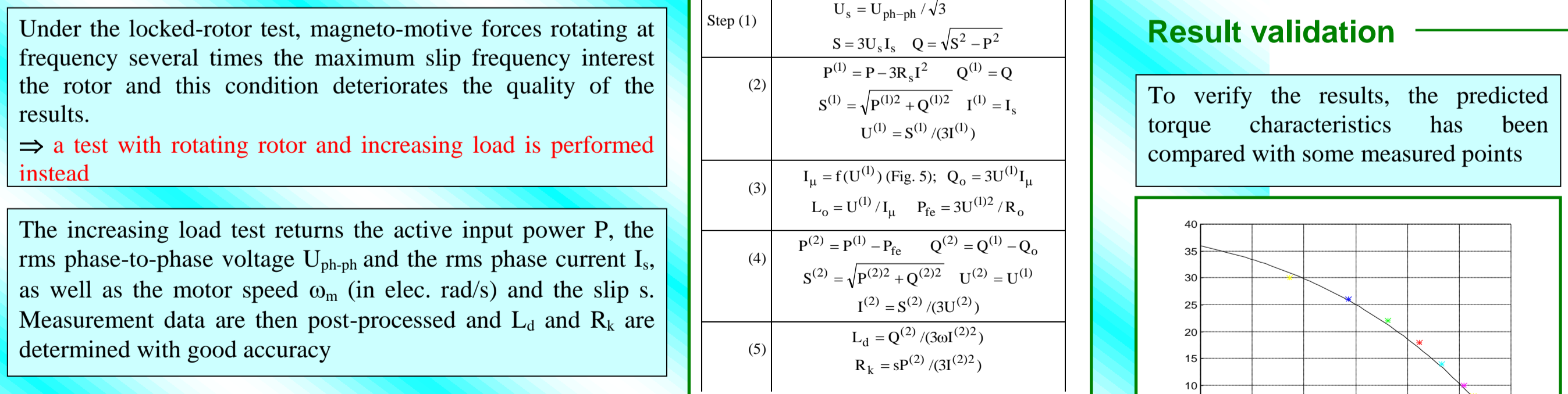
## Equivalent circuit for FOC drives



## Measurement circuit and no load test



## Test at rated voltage and increasing load



## Conclusions

The paper has proposed a simple and effective procedure for characterising an induction motor to be used in a FOC drive. By the results of the procedure the drive manufacturer is able to tuning any FOC control scheme as done since a long time with brushless motor drives.

