

CPR Teaching in secondary schools, a national project in Luxembourg, a 10 years' experience

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INTRODUCTION

Sudden cardiac arrest without successful cardiopulmonary resuscitation (CPR) is the third leading cause of death in industrialised nations. As the early initiation of CPR can significantly increase the survival rate, we must substantially raise the number and quality of bystander resuscitation.

In 2013, the Luxembourg Resuscitation Council (LRC) decided to promote cardiac arrest awareness by educating the general public in BLS-AED, and we started the 'Réagis' ('React') project in various municipalities and private companies.

In 2015–16, the LRC launched the Réagis au Lycée pilot project in four public secondary schools (PSS): a train-the-trainer programme in which teachers teach students CPR.¹ Due to the very positive feedback from teachers and students, the Minister of Education (MEd) has decided that CPR training will become compulsory in all PSS.

MATERIALS AND METHODS

In 2017, following the positive feedback from teachers and students of the pilot project of 2016, the MEd made CPR training compulsory, in all PSS at three levels during the school curriculum.

The MEd provided 30 mannequins and 2 training AED per school and organized BLS-AED provider courses for 20 teachers from all the PSS as a train the trainer program. A 2 hour-session on how to organize a CPR course for students was provided to the teachers, as well as the instruction slides intended for the students.

Each PSS organizes the courses on its own but complying with the following: 20 minutes theoretical teaching followed by 80 minutes of hands-on training with instructions how to perform hands only CPR combined with an AED.²

To achieve a multiplier effect of the trainings, the students get a "Tapis de réanimation" for training family members and friends (picture 2).

LRC has been mandated to supervise this project.

The Med's reference person, the LRC's reference person and the PSS's reference person communicate with each other on the Teams platform and hold an annual meeting to share information and make progress on the project.

RESULTS

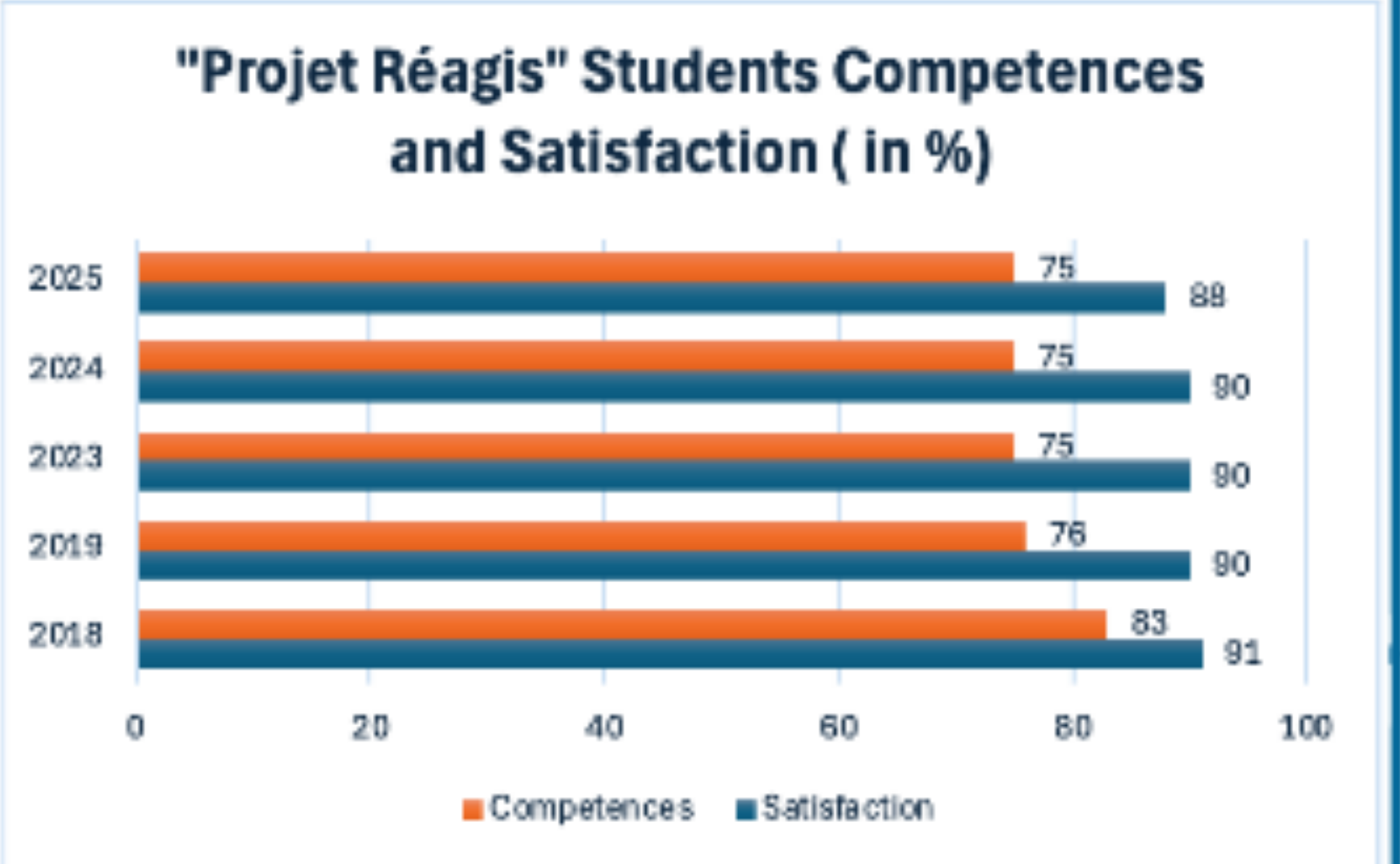
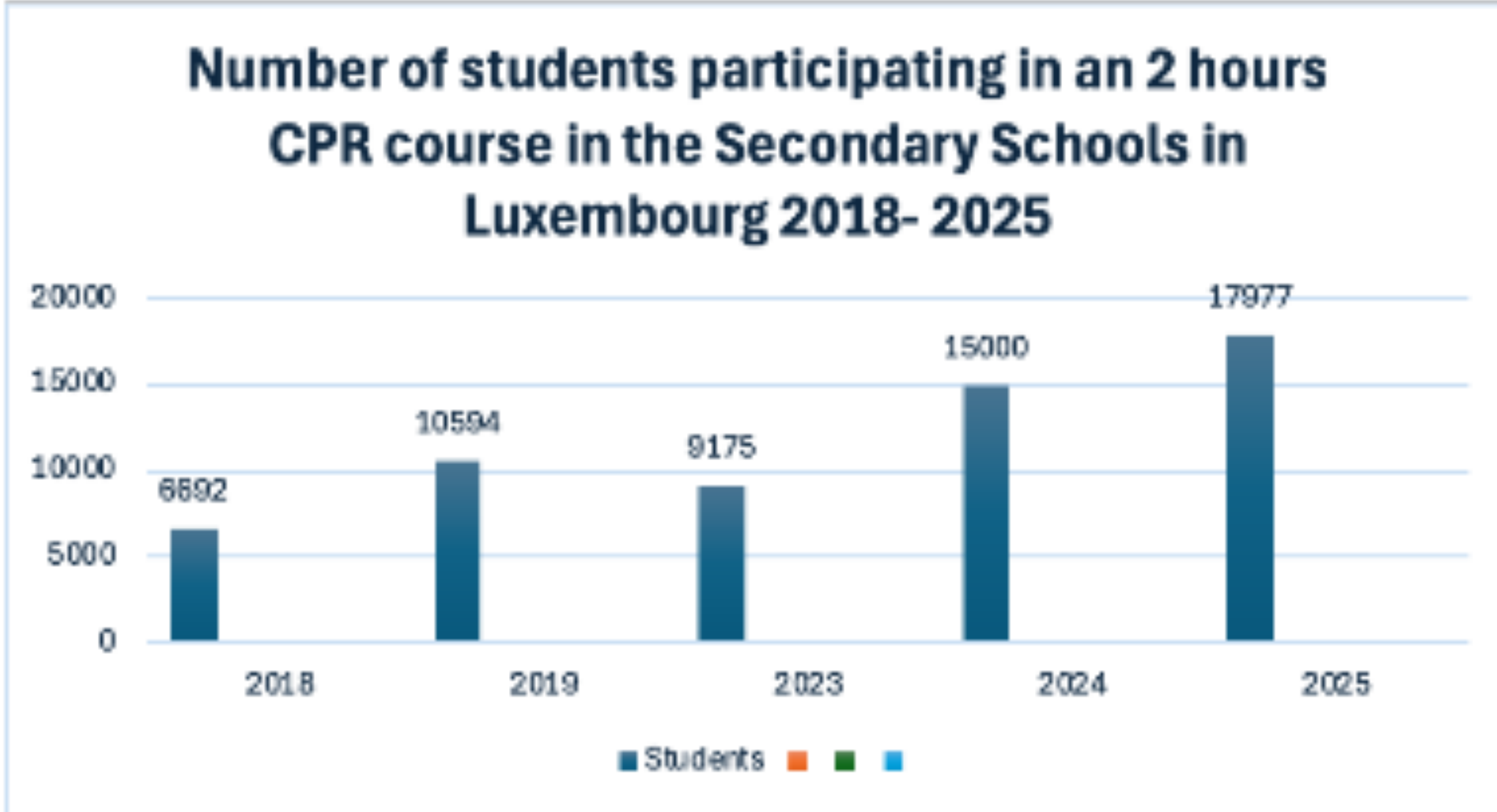
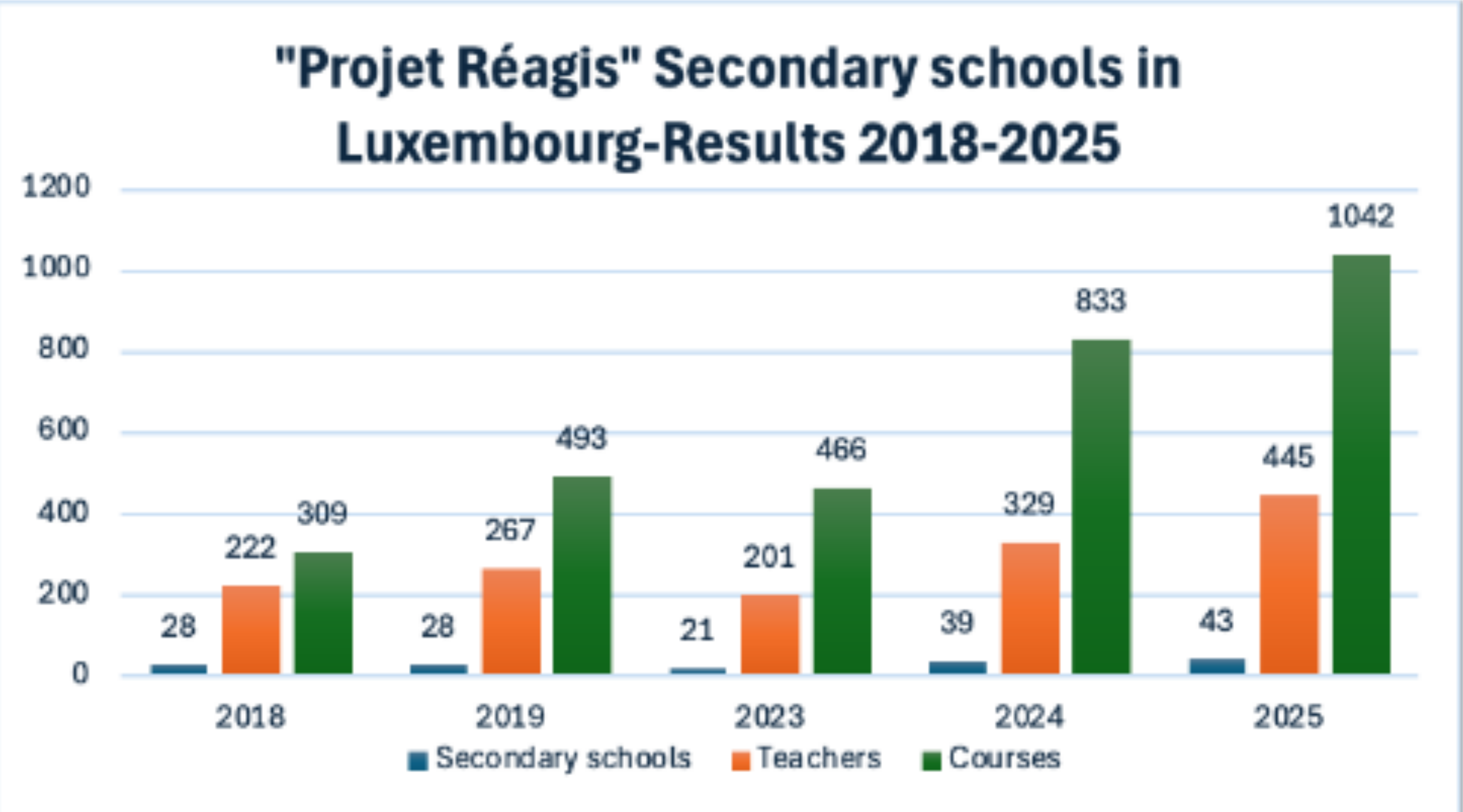
The results of the BLS-AED P courses for teachers:

- Number of Secondary Schools participating in the project: 43
- Number of teachers trained in BLS: 1261
- Number of teachers trained in a Refresher course: 196
- Overall satisfaction of the teachers: 90%
- Formal assessments of the teachers: 100% positive results
- Motivation for teaching the BLS skills: >90%

The results of the courses in the secondary schools: min-max

- Number of students participating in the project: 5 000 - 17977 /year
- Number of teachers participating in the project: 220 – 445/year
- Number of "Réagis" courses realized: 300 – 1042/year
- Satisfaction of the students: 90%
- Performance of the students: 80%
- Satisfaction of the teachers: 90%

In the period from 2018-2023, the bystander CPR rate increased from 31% to 49% and the 1-month survival, if bystander CPR was performed, increased from 4.1 to 10.8%.

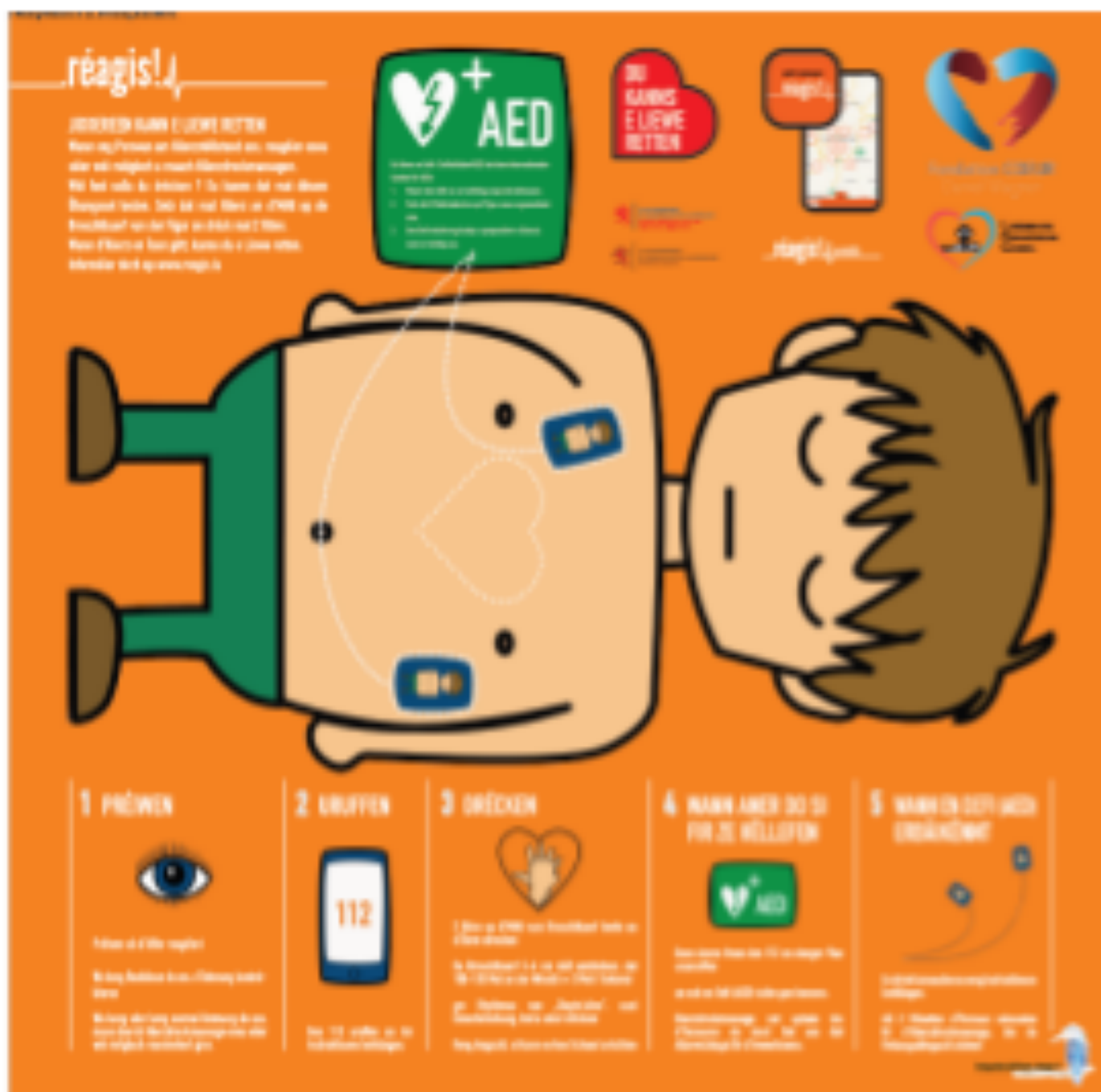


PURPOSE

The LRC aspires to increase the number of lay people performing CPR in out of hospital cardiac arrest (OHCA). By teaching students of all PSS we aim to train tomorrow's live savers (picture 1).



Picture 1



Picture 2

CONCLUSION

CPR-AED trained schoolteachers are motivated and skilled to instruct their students to become tomorrow's life savers. Students easily acquire CPR AED skills with huge enthusiasm. This program might have contributed to an increase in survival.

REFERENCES

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- European Resuscitation Council comments on compression-only CPR study published in the Lancet 2007; 369:920-26