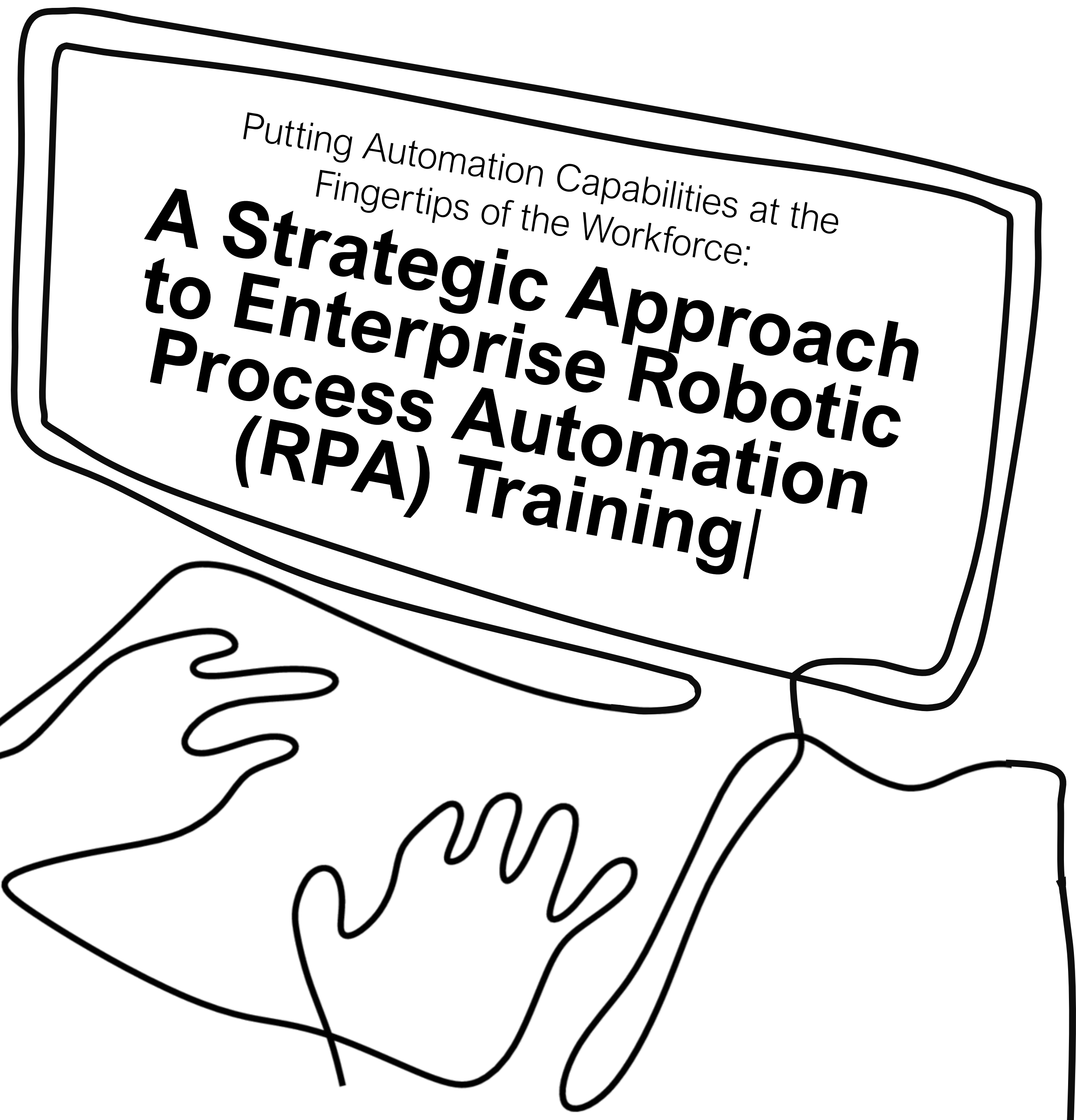


SGH RPA Core Team

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BACKGROUND

RPA, an automation tool utilizing software bots to interact with various systems and applications to perform business processes, is at the forefront of SingHealth's drive towards hyper-automation. Today, almost anyone with or without programming knowledge can leverage RPA's low-code capability and automate processes, thus revolutionising efficiency across the organisation.

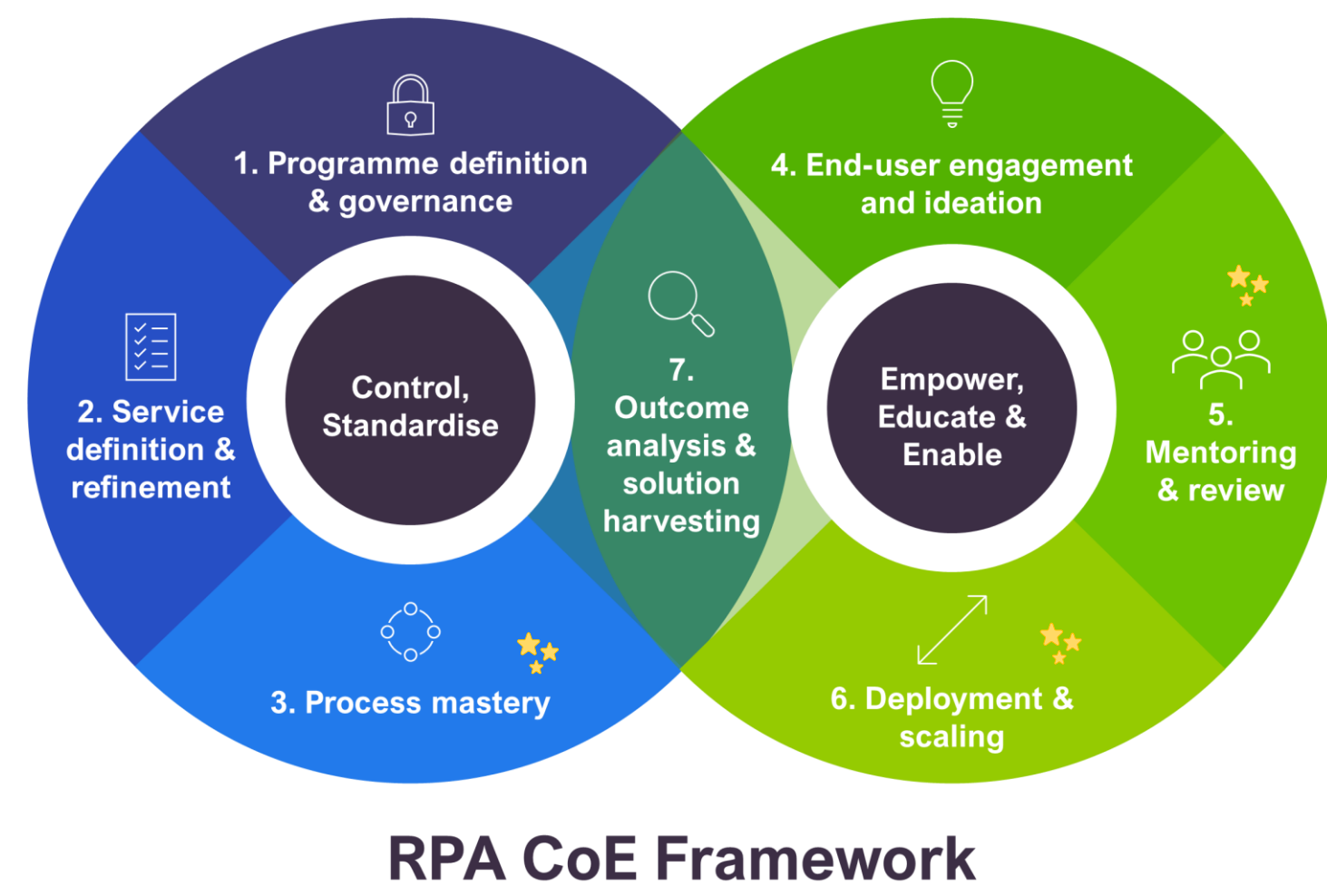
In SGH, ground staff is encouraged to pick up RPA skills, as this allows our subject matter experts to create automations tailored to their own department's workflows.

Prior to FY22, ground staff attended RPA courses run by external course providers. Their feedback was lukewarm – course content was generic, not healthcare-specific and lacked follow-up. As such, many did not use the skills they have learnt.

METHODOLOGY

Following two years of external training with mediocre results, the SGH RPA Core Team switched gears and introduced its own in-house RPA training programme.

This initiative marks a significant step towards realising SingHealth's objective of enhancing staff digital literacy and competency, and addresses Points 3., 5., and 6. in the CoE Framework.



Objectives

The programme aims to equip ground staff with all necessary skills required to be a proficient Citizen Developer* (CD) including:

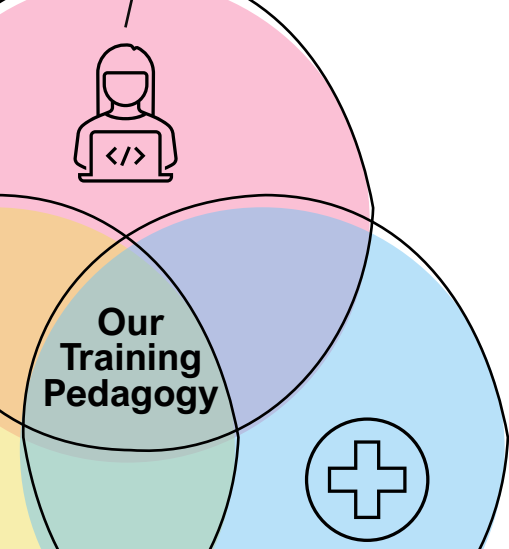
- Assessing a business case;
- Computational & analytical thinking skills; and
- Using UiPath Studio to automate common processes in healthcare (e.g. data entry into and data extraction from applications, data analysis, and operational and clinical workflows etc.)

Training Pedagogy



1. Blended Learning

While some prefer traditional classroom learning, frontline workers on roster may prefer flexible learning hours. As such, we introduced an e-learning component covering basic RPA concepts, which allows participants to complete at their own time and pace.



2. Collaborative Learning




Face-to-face workshop enables participants to apply theoretical knowledge, learn with classmates, and get advice from trainers. Engaging in collaborative group work also allows participants to evaluate and solve problems together and exposes them to more diverse ideas and approaches.

3. Customised Curriculum

Our programme stands out as it teaches RPA concepts specifically tailored to the unique public healthcare IT ecosystem and allows participants to gain hands-on experience automating on our internal applications. This ensures that they can apply their skills in real-world situations.

Outcome

The revamped training programme now comprises of three segments:

<p>Theory e-Learning (6 to 8 weeks)</p>  <ul style="list-style-type: none"> • 1 – 2 modules/ week • Fortnightly recap sessions via MS Teams with Q&A 	<p>Hands-on Workshop (2 days)</p>  <ul style="list-style-type: none"> • Hands-on scripting on UiPath Studio • Work on practice exercises/ use cases • Both individual & group work 	<p>Real-life Project (over 6 months)</p>  <ul style="list-style-type: none"> • Automate a real-life process • On-demand consultation with trainers • Opportunity to deploy automation
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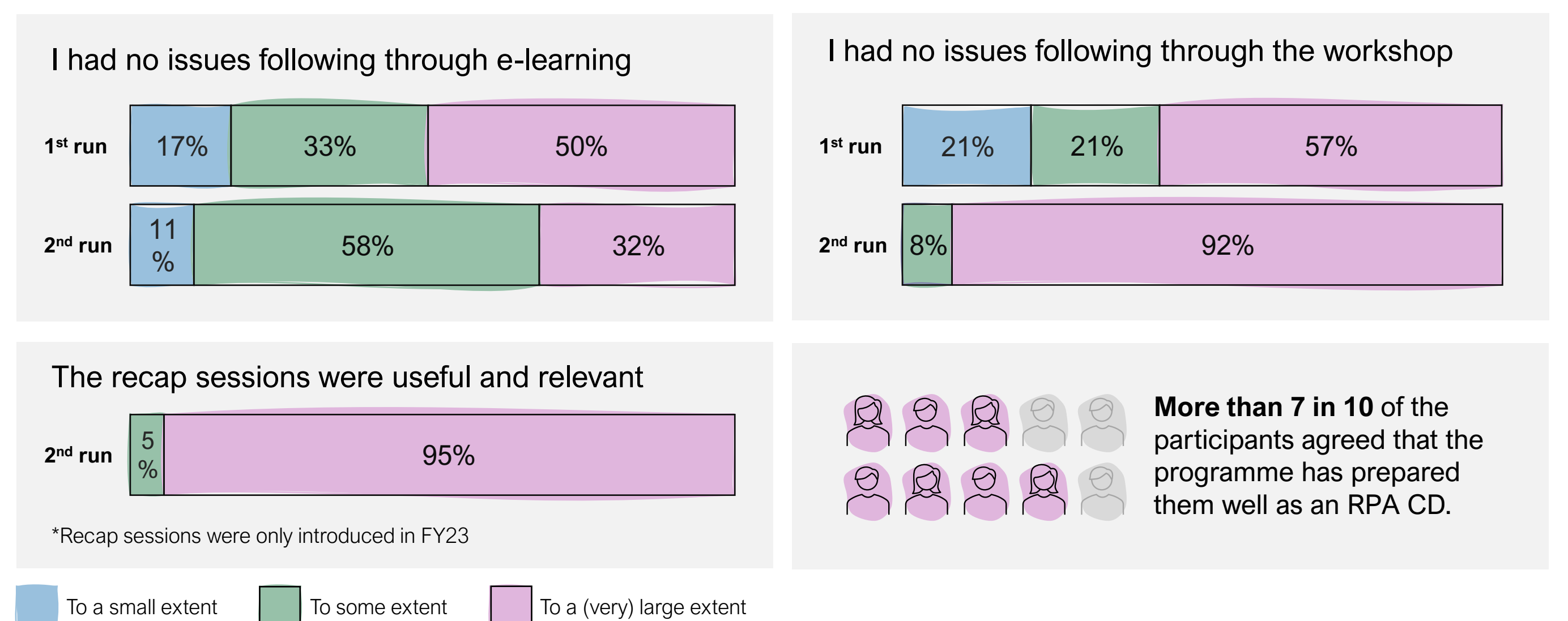
RESULTS

The two runs of in-house training garnered strong interest from the ground with more than 100 applications in each run, and a total of 19 and 24 CDs trained in the first and second run respectively. However, in the first run, while the workshop was relatively well-received, some participants struggled with e-learning due to unfamiliarity with computational thinking and programming syntax.

As such, further improvements were made to the second run, including:

- **Introducing computational thinking questions** in the selection process to identify individuals most suitable to pick up RPA skills; and
- **Introducing recap sessions** every two weeks during e-learning.

Efforts paid off and the number of participants who completed (at least) one automation project after the workshop rose from 10% to 60% by the second run.



Verbatim feedback across both training runs include:

<p>“The trainers have been an amazing source of support.”</p>	<p>“Thanks for the enriching and enjoyable workshop.”</p>	<p>“The recap sessions were very useful to consolidate our knowledge.”</p>	<p>“No other comments as everything was done so well!”</p>
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CONCLUSION

Today, approximately half of our CDs received in-house training and nearly half of the 55 automation projects implemented in SGH were spearheaded and developed by CDs, resulting in over S\$264,000 in annual productivity gains. This can be credited to the strategic decision to switch to in-house training.

The Future of RPA in Healthcare

RPA will continue to transform healthcare delivery by making automation accessible to staff with limited IT skills. By empowering ground staff to create and deploy automation workflows, we reduce reliance on the Core Team, leading to quicker benefits. As such, CDs are paramount to the success of low-code digital automation.

SGH plans to enhance the training programme by offering curated e-learning modules by FY24, and foster CD community engagement through creating a shared repository and platforms for knowledge sharing. Scaling and sustaining the programme may also involve a 'Train-the-Trainer' approach, and offering advanced training for experienced CDs, all of which aimed at enabling our CDs to achieve their fullest potential.

