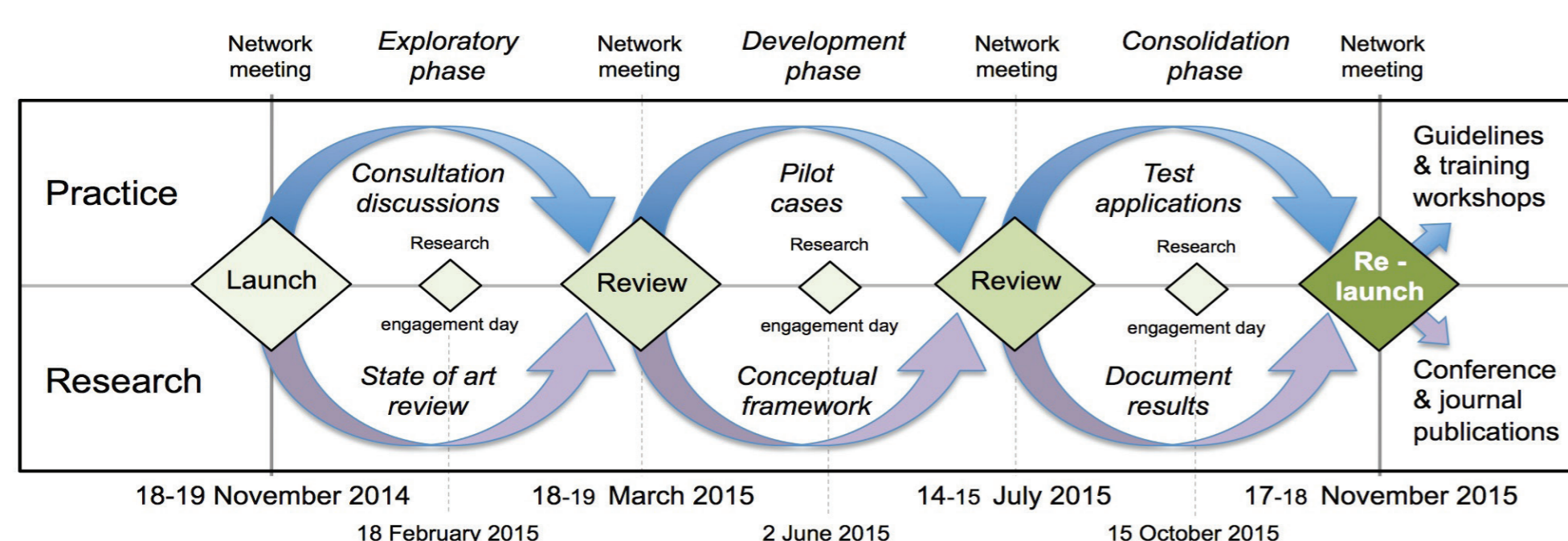
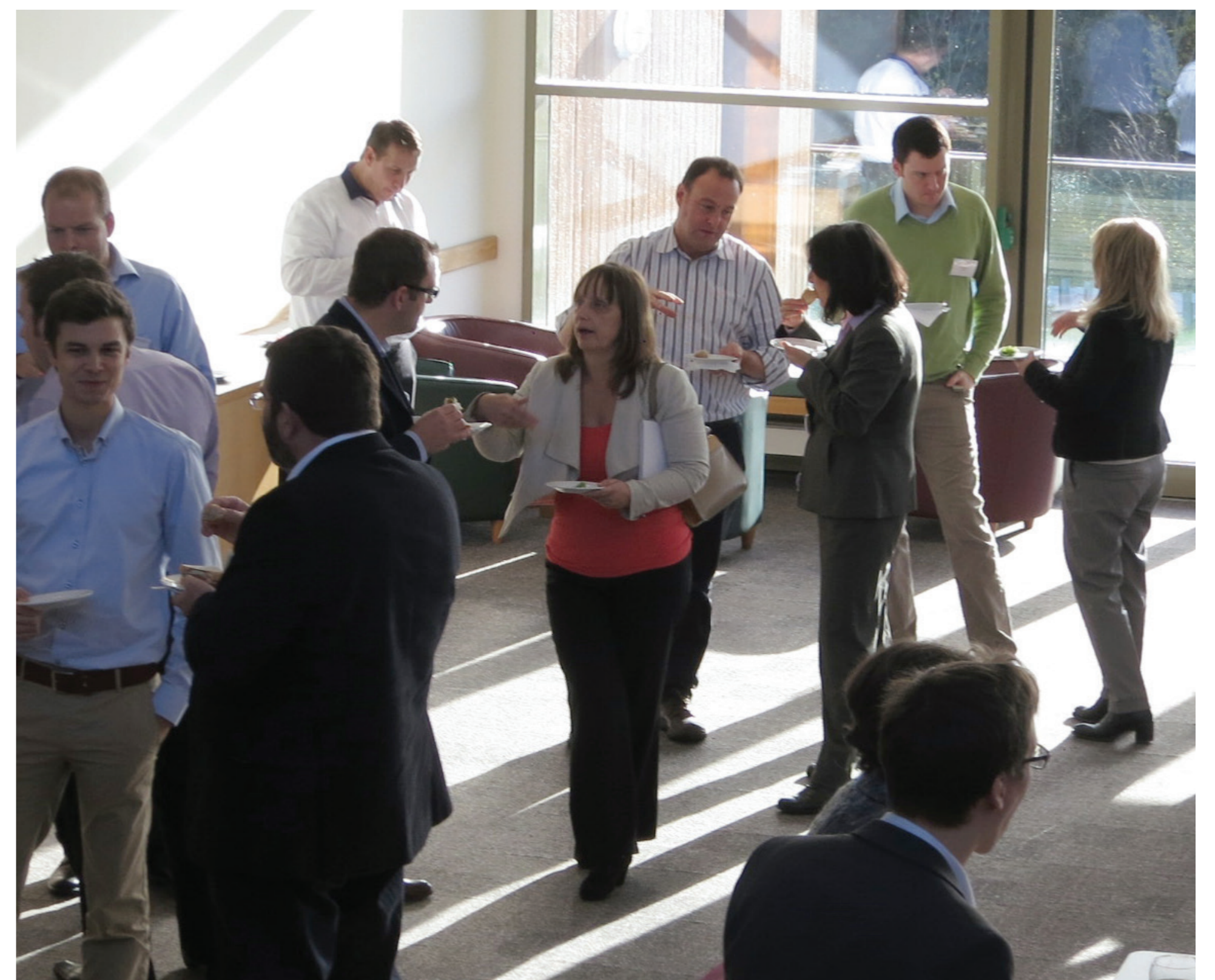


Strategic Technology & Innovation Management Consortium (STIM) - 2015



Overview

The Strategic Technology & Innovation Management (STIM) Consortium was set up in 2013 as a practice-oriented research and networking collaboration between industrial member companies and the Centre for Technology Management. Three Consortium network meetings are held each year, providing an opportunity to review progress, influence direction of research projects, and share best practice, supported by project level meetings and workshops.



Annual Programme

The STIM Consortium is an annual rolling programme, comprising three broad phases:

- 1. Exploration:** consultation to understand industrial context, issues and priorities, combined with state-of-the-art review.
- 2. Development:** pilot case studies to develop practical approaches and underpinning conceptual frameworks.
- 3. Consolidation:** test applications and documentation of results in the form of managerial guidelines, training materials and academic publications.

To find out more about STIM contact:

Dr Robert Phaal (rp108@cam.ac.uk)
www.ifm.eng.cam.ac.uk/research/ctm/stim

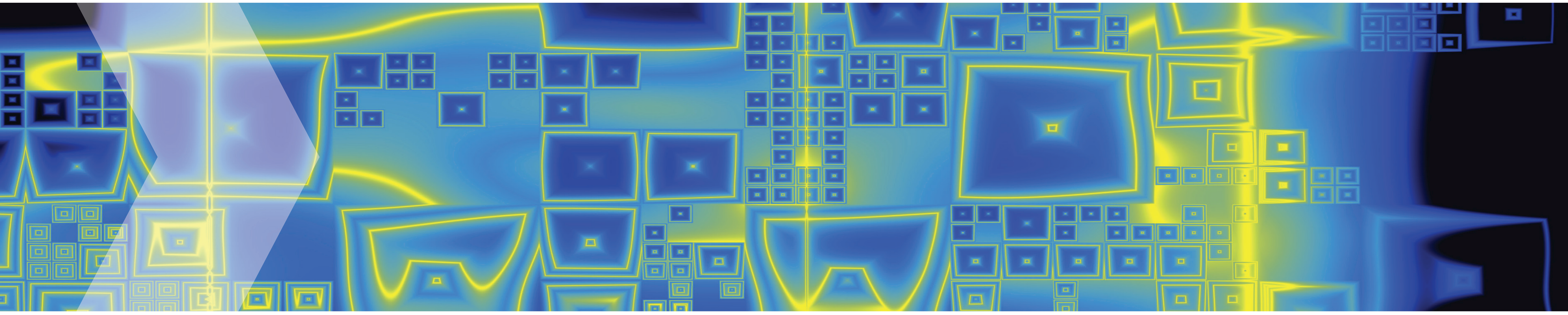
Aims and benefits

Members of the Consortium benefit from:

- Access to a network of firms from a range of industry sectors to share experience through a regular series of meetings and engagement in individual research projects.
- The opportunity to influence the direction of research and development, with the associated early benefits gained through participation in case studies and application pilots.
- Transfer and application of methods developed, supported by guidance notes and other practical outputs.



STIM Consortium research projects



The 2015 Strategic Technology & Innovation Management (STIM) Consortium programme comprises 11 research projects:

1. Keeping roadmapping alive – embedding the process

Keeping roadmapping alive is an even greater challenge than starting it up. Recent industrial feedback suggests that a practical approach to ‘embedding’ roadmapping in an organisation would be useful. This project aims to understand the problems involved more clearly, to develop preliminary guidance and identify priorities for further work.

Contact: Clare Farrukh (cjp22@cam.ac.uk)

2. Scalable toolkit platform

The appropriate application of management tools is a challenge in industry; especially given the need to adopt and integrate individual tools into a toolkit that can be implemented within current organisational processes. This research project is developing a scalable toolkit platform to enable the design and deployment of coherent tool sets in industrial settings.

Contact: Dr Clive Kerr (civk2@cam.ac.uk)

3. Visualising portfolios

Portfolio perspectives are fundamental for managers. However, the execution of portfolio-related visualisations is relatively poor and lacks a robust approach to presentational style. Taking a pragmatic stance, which attempts to balance data provision with the needs of different audiences, this research project is developing visual representations for different types and aspects of portfolios (including pipeline and platform depictions).

Contact: Dr Clive Kerr (civk2@cam.ac.uk)

4. Patent informatics to support innovation processes

The project will explore and typologize existing patent data indicators (e.g. patent value, quality) and patent analysis tools (e.g. citation analysis, patent to invention maps). Involving experts (e.g. via interviews, a survey) the projects will explore innovation process related questions that can be answered using the different indicators and tools. A practical guide (framework) with recommendations for suitable patent indicators/tools to effectively support the different gate decisions will result from the project.

Contact: Dr Frank Tietze (frank.tietze@eng.cam.ac.uk)

5. The development of business models to anticipate disruption

When a new technology causes disruption, it may be because firms have not identified, assimilated and reacted to the signals of change. Having a way to prepare for imminent threats could be a proactive approach to reduce the challenges of assimilating intelligence on potential disruptions. This project seeks to explore the relationships between patterns of business model reconfiguration and technological disruption.

Contact: Dr Letizia Mortara (lm367@cam.ac.uk)

6. Loading and scheduling multi-project R&D activities

It is a truism that projects tend to overrun, and R&D projects more so than most. The problem may in part be due to how the project pipeline is loaded. There may be a critical level of loading (a kind of Reynolds Number) beyond which a certain point adding more work results in reduced output as well as delays. The purpose of this research is to explore these issues, including the estimating problem, in order to recommend ways both to alleviate them and to determine the optimal level of loading in a particular case.

Contact: Prof Rick Mitchell (rfm26@cam.ac.uk)

7. Serious gaming for STIM training

Serious games are a mechanism for supporting learning in organisations. As a form of experiential learning, they provide practitioners with educational benefits, doing so in neutral, risk-free settings away from day-to-day decision-making. In the 2015 STIM programme, the “Acquiring early-stage technology” game that started to be developed during 2014 will be completed through in company tests, while new serious games in the areas of corporate venturing and design thinking will begin to be developed.

Contact: Dr Simon Ford (sf39@cam.ac.uk)

8. Value creation and capture – Enrichments and Headstarts

Value creation for companies involved in R&D and service delivery presents many challenges. Differentiating activities that create value from those that do not is one. Quantifying value is another. In addition the challenges become more difficult a wider view of value is adopted; one which includes relative values which are implicit, such as staff retention or competency. This project builds on work completed in 2014 and aims to develop the concepts of Headstarts and Enrichments which may be identifiable in any project.

Contact: Dr Valerie Lynch (Valerie.Lynch@adtr.com)

9. A framework for supply chain new product & process development collaboration

To maintain competitive advantage in a dynamic marketplace companies are looking for greater agility in their exploration and commercialisation of new technologies. Collaborating with supply chain partners is widely acknowledged as an enabler, but guidance on how this can be undertaken is limited. The framework developed within this research will provide a vehicle for companies to gain awareness of their suppliers and customers hidden and/ or early stage technology capabilities and developments. This in turn should allow access to strategic market intelligence to unlock unique technology potential.

Contact: Tanya Edwards (trg27@cam.ac.uk)

10. Scalability of roadmap architectures

As part of a PhD research project, the aim of this project is to explore the scalable nature of roadmap architectures within firms. This will be achieved by reviewing the literature and practice of roadmapping, and through interviews with roadmapping practitioners and experts in industry and IfM. Findings from this project are expected to be useful to further discuss potential scalability issues when designing roadmap architecture.

Contact: Yuta Hirose (yh359@cam.ac.uk)

11. Technology-based project evaluation and valuation

This project is designed to deliver a conceptual framework for technology valuation and evaluation, together with a catalogue of techniques used and their advantages and disadvantages, from large company’s perspective. This project requires a combination of theory, paralleled exploratory interviews and case studies to explore the industrial context of technology valuation and evaluation, understand key dimensions that characterise the challenge, and understand methods used, their strengths and weaknesses.

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To find out more about STIM contact:

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