

The Origins and Development of the 100%Open Collaboration Styles Test

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15th December, 2017

1. Abstract

Why are some teams better at innovation than others? Why do some individuals perform better at certain innovation tasks than others? Is there an optimum team for collaborative innovation and are other teams destined to fail from the outset?

Innovation is a complex set of processes and involves collaboration across its various phases. Much has been written in the literature about innovation processes and about team working but there has been relatively little attention paid to collaborative innovation. Here we review the development of the 100%Open Collaboration Styles (Co-Lab) test, consider how it fits in with other well-established methods for improving team performance and provide examples of its application in an innovation environment.

2. Introduction

2.1 What do we mean by “Innovation”?

We base our definition of innovation on Crossan and Apaydin’s, which itself builds on the OECD¹ definition:

Innovation is: production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems. It is both a process and an outcome.²

Innovation is more than invention therefore. In a typical innovation funnel, most new products, services or business models will never reach the market and therefore fail to qualify as innovations.

¹ Organisation for Economic Co-Operation and Development

² from [wikipedia.org](https://en.wikipedia.org), accessed 11th October 2017

⁹ E.g. Research from The Performance Factory shows that every successful innovation process has three distinct steps. The Search step, The Incubation step, The Execution step [\[link\]](#)

¹⁰ Exploration and Exploitation in Organizational Learning, James G. March, 1991

Open innovation has been defined by Henry Chesbrough in the following manner:

The use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively (Henry Chesbrough, 2003).

The authors have built on this understanding as the open innovation sector has developed. 100%Open's definition thus includes a partnership-based business model as a fundamental aspect of the model:

We define open innovation as innovating in partnership with those outside an organisation by sharing the risks of the process and rewards of the outcome. [100%Open]

2.2 The 100%Open Innovation Process Model

In common with much innovation literature³ the authors consider a typical innovation process in terms of three distinct phases. 100%Open named these Explore, Extract and Exploit. Each phase consists of two activities as shown below:

EXPLORE	EXTRACT	EXPLOIT
1. Set Strategy 2. Research Needs	3. Discover Ideas 4. Make Prototypes	5. Develop propositions 6. Make business models

What is important for this approach to be effective is not just the level of collaboration or creativity within a team, but how these two aspects come together to perform well both within each phase and in the transition of one phase to another. It is also come to be recognised in organisational strategy⁴ that effective organisational learning and innovation depends on balance of exploration and exploitation. Too much of either is counter-productive. This thinking has culminated in 'agile' processes and the widespread adoption of design thinking and prototyping in business practices.

In 2013 after 3 years of business, 100%Open had found that successful open innovation depends not only on efficient processes and 'win win' business models, it also depends on the mindset and attitude of participating individuals as they collaborate. Whilst there are many optimised innovation processes and psychometric tests for individuals, there was a gap for a test that focused on the attributes and qualities needed to collaborate in open and complex innovation processes. The Co-lab test was created to fill this gap. Here is a brief review of some of the existing models and how the Co-lab test seeks to complement them.

Table 1. Comparison of Co-Lab with other established methodologies

Methodology	How the Co-Lab Test Builds
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³ E.g. Research from The Performance Factory shows that every successful innovation process has three distinct steps. The Search step, The Incubation step, The Execution step [\[link\]](#)

⁴ Exploration and Exploitation in Organizational Learning, James G. March, 1991

Belbin Team Role theory (1981) was designed to enable individuals to be able to project and talk about their behavioural strengths in a productive, safe and non-confrontational way. Belbin is designed to give individuals a greater self-understanding of their strengths, which leads to more effective communication between colleagues and managers.	The Co-Lab Test (2013) was designed to enable individuals and teams to innovate collaboratively with teams and across organisational boundaries. Some of the Co-Lab test archetypes have similarities to the Belbin roles although the latter are more functionally descriptive e.g. The Specialist.
The Myers-Briggs Type Indicator (MBTI), first published 1944, uses an introspective self-report questionnaire - from origins of Carl Jung's theories of psychological types - with the purpose of indicating differing psychological preferences in how people perceive the world around them and make decisions.	Co-Lab expands on the individual characteristics, preferences and 1:1 interactions of MBTI, to place these in both a team setting and open innovation context. This suggests where people are at their most effective in the innovation phases.
The Spony Profiling Model (SPM) is a profiling tool for individuals, teams and organisations. SPM reveals motivations, preferences and flexibility, highlighting areas of tension; key challenges and opportunities for development. This is achieved by measuring individual work values and how others see them at work, manifesting their values through their management style. It can be adapted to different environments.	This delivers a similar individual profile assessment as Co-Lab, the difference being in the specific application of open innovation that Co-Lab is designed for.
Six Thinking Hats is a parallel thinking process to learn how to separate thinking into six clear functions and roles. This enables people to focus or redirect thoughts conversations, or meeting discussion.	Rather than have everyone wear each "hat" to obtain a holistic understanding of the issue, Co-Lab recognises people's individual preferences and suggests how they work best in a team situation
Group Genius: The Creative Power of Collaboration (Keith Sawyer, 2008) explores how an organization's future innovative success lies not only in the creation of an internal collaborative culture, but also in the organization's willingness to move into the realm of collaborative webs, where individuals and organizations share their knowledge in the hope that this will spark new ideas	Co-Lab uses the characteristics of its archetypes - providing candidates an appreciation of preferences on individual level - to group situations. This helps indicate group balance - strengths, weakness and where they can deliver greatest effect in the phases of open innovation
The Ten Faces of Innovation (Jonathan Littman, 2005) provides observations on a number of roles that people can play in an organization to foster innovation and new ideas while offering an effective counter to naysayers. It details how businesses have used innovation and design thinking to transform customer experience.	Co-Lab adopts a similar approach in terms of assigning preferences on a individual level, however the Co-Lab framework provides further insight into how and where individuals best operate in the phases of open innovation
The 90-9-1 Rule for Participation Inequality in Social Media and Online Communities (Jakob Nielsen, 2006) proposes and explores reasons for the balance between online contribution of users: never (90%), a little (9%), almost all (1%). He suggests that the best approach to rebalancing this is to make it easier to contribute, make participation a side effect (of other deliberate actions), optimise participation through users editing other content rather than creating from scratch, providing (appropriate) reward, and promoting quality contributors	This philosophy, and the lessons and suggestions from it can be used in conjunction with Co-Lab to help create environments where contribution from all participants optimised. Using the Co-Lab archetype preferences alongside the 90-9-1 insights into motivation offers the potential for a more diverse and potentially more balanced participation.
Thinking Fast and Slow (Daniel Kahneman, 2011) summarises research into different ways the brain forms thoughts: "System 1" is fast, instinctive and emotional; "System 2" is slower, more deliberative, and more logical. It covers a number of experiments which purport to highlight the differences between these two	Co-Lab uses the understanding of some of these innate characteristics in the development of its six archetypes. This is then further expanded into their preferences, strengths and weaknesses in an open innovation team setting.

thought systems and how they arrive at different results even given the same inputs.	
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This brief review of existing tools and literature explains why 100%Open wanted to create a new tool that specifically focused collaboration for innovation. Each of the references above was used to inspire and inform the Co-Lab Styles Test and therefore should not be compared directly as a competitor, but a progenitor. A new more collaborative business paradigm was being born. It needed appropriate new tools.

3. Methodology

Everyone has a role to play when it comes to collaborative innovation, but individuals need to know where they fit in a team. The Co-Lab methodology assesses people's collaboration skills and the balance of such skills within a team, company or partnership. It helps by finding out what role people are good at playing in collaborations (and what they are not so good at) and how they can use collaboration to the wider benefit of the organisation.

3.1 Co-Lab Archetype Profiles

There are six Co-Lab archetype profiles, summarised in the table below. These allow an individual to understand their preferred role(s) and contribution within an innovation-focussed team, as well as their likely strengths and weaknesses. It can also be used to support the construction of well-balanced teams (or those designed to focus on one of the specific phases Explore - Extract - Exploit), and in the analysis of teams in action to better understand performance and potential.

Table 2. Summary of Co-Lab archetypes

	Description	Strengths	Weaknesses
Connectors	Being an outgoing and sociable person, you're often the glue that binds people together into a team. You bring a matchmaking ability that can spot existing connections between people and suggest new ones – this means you are valued by others and happy working in a group. You much prefer working in an office than from home, although you will readily make use of social media to foster a large network. With interests in diverse areas, you find it easy to think laterally, combining ideas to come up with something new. You learn best by making an emotional connection with others, but you're also motivated by the idea of mastering a new skill.	Spotting similarities or differences Brokering new opportunities Being interested in others	Can be distracted and unaccountable
Producers	Resourceful and knowledgeable, you enjoy taking responsibility for the quality of your team's contribution and output.	Understanding everyone's diverse motivations	Shows more interest in the process than results

	You are happiest working in a group and enjoy inventing new processes and measuring progress. You help facilitate teams by establishing and agreeing on rules of operation and cultural norms, and this helps get results. Having time to think and reflect is the best way for you to learn, while you are motivated by putting teams together and arranging capabilities and resources into effective combinations.	Navigating challenges Communicating with sensitivity	
Activators	Practical, action-orientated and energetic, you take responsibility for getting stuff done. You're essential to the process of turning good ideas into working innovations – being a great list-writer and day-planner you derive great satisfaction from completing tasks. You are happiest working in a group, and will gravitate towards project management roles. Consequently, you are good at bringing others along due to your enthusiasm, drive and sense of purpose. You'll often lead by example, preferring to demonstrate what you've achieved as opposed to having meetings about what to do. You learn best by doing, and are motivated by a sense of purpose.	Leading by example Mobilising others Communicating with authority	Can stifle innovation by jumping into solution mode too quickly
Explorers	You're the dreamer, the creator. Being the observant type you're able to easily identify unmet needs, and you express frustration with anything that doesn't work it should. You get great satisfaction from the creative process, but are less interested in the final application of ideas. You benefit from others around you appreciating your work and helping you choose and action your best ideas. You learn best by doing, and you're motivated by any opportunity to stand out and be different.	Being creative and inquisitive Original thinking Spotting insights Testing different concepts Communicating enthusiastically Working alone or in a team	Can be prone to over-excitement and a lack of focus
Influencers	You like to build on other people's ideas by telling engaging stories, happily and effectively representing a team's viewpoint to the outside world. You're good at spotting connections and weaving narratives that audiences want to hear, and you are motivated by converting people to your point of view and telling engaging stories. You're naturally well-connected and have a large social circle and many business connections; among these contacts you hold a reputation as an expert in your field, sought out for your opinions. You're concept-driven, highly adept at simplifying complicated arguments into clear propositions. You're at your best working	Encouraging others to open up Understanding what's important to others Communicating persuasively	Tendency to exaggerate details or dominate

	autonomously, although you need the back-up of a well-functioning team. You learn best on the job and are always open to new ideas, eager to absorb new information.		
Cultivators	You're a naturally helpful person who often helps develop and nurture the ideas of others. As The Cultivator, you're well-liked, often confided in, and act as a trusted friend. You demonstrate great sympathy for colleagues and empathize with customers. There is a practical side to you that gains real satisfaction from not only finishing projects but also making sure they are developed to the highest quality. You retain sight of the original project objectives but also spot opportunities for improvements. You are motivated by being part of a broader community but are more comfortable working in pairs or small groups. You learn best by making emotional connections with others, and are motivated by a sense of purpose and making things the best they can possibly be. A persuader and a presenter, you have imagination and drive.	Empathy Intuition Inspiring others Maximising quality	Can blend into the background and lack confidence

3.2 Co-Lab Styles Framework

Compared with other well-established methods such as Belbin⁵ or the Myers-Briggs Type Indicator (MBTI), Co-Lab provides a rounded assessment at the level of the individual, their contribution within the team and the effectiveness of the whole team for an innovation task, both within and across organisational boundaries. There are many psychological, cultural, legal and technical challenges inherent in innovating across organisational boundaries (Chesbrough).⁶ For example, Simon Sinek (ref needed) notes that *"A team is not a group of people who work together. A team is a group of people who trust each other."* The challenges of mutual trust are magnified across organisational boundaries, from Non-Disclosure Agreements (NDA) through to licensing or royalty terms and conditions. Some firms (e.g. Procter and Gamble) will not even have private conversations with external innovators or sign NDAs with them for fear of future risk. In such circumstances it is difficult to develop the relationships needed for collaboration to flourish. If innovation is a team sport⁷, open innovation is an extreme team sport.

In addition to considering archetypes individually, the Co-Lab framework structures these around the innovation process and provides greater insight into the balance of a team as affected by individual learning styles and motivations. Each style plays a role across the whole innovation process although certain styles are essential at certain stages as shown in the diagram below.

⁵ Meredith Belbin expounded Team Role theory in his book, "Management Teams: Why They Succeed or Fail", 1981. See also www.belbin.com

⁶ Open Innovation: The New Imperative for Creating and Profiting from Technology by Henry William Chesbrough, Harvard Business Press, 2006

⁷ Creating Innovators: The Making of Young People Who Will Change the World by Tony Wagner. Simon and Schuster, 2012

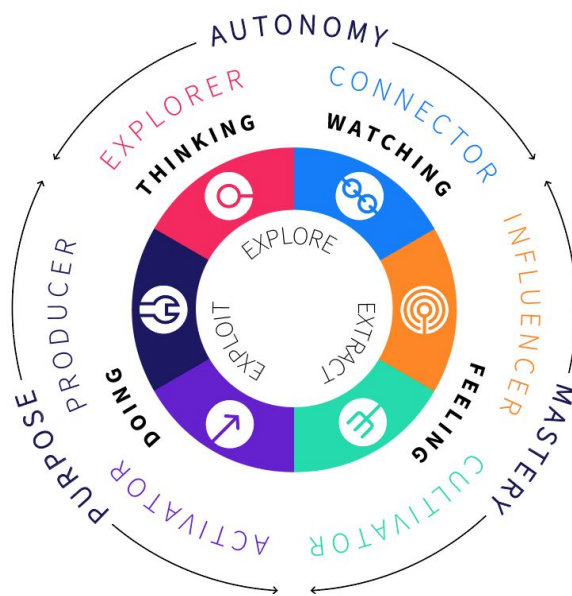


Figure 1. Co-Lab Styles Framework⁸

It follows that when planning temporary or phased teams it is not necessary to have perfect balance across all styles; a more focused approach may pay dividends within each phase.

Firstly, Co-Lab styles have different contributions based on the innovation *process* (Explore, Extract, Exploit). This is important because the combination of roles across participants helps to identify where the potential strengths and shortfalls of the team lie in relation to what they are collectively trying to achieve at that stage in the process.

As the layers develop outwards from the centre of the diagram, next come *learning styles* (Thinking, Watching, Feeling, Doing). These indicate how each role prefers to experience, consider and respond to the information presented to them. In terms of learning styles, Explorers tend to adopt the Thinking style (abstract conceptualisation), Connectors the Watching style (reflective observation), Influencers and Cultivators the Feeling style (concrete experience) and Activators and Producers the Doing style (active experimentation).

Compared to this, the Belbin approach uses a 3 section “cluster of behaviour” to divide their roles in Action-oriented, People-oriented, or Thinking-oriented. These are clusters based upon personal characteristics exhibited by people within successful teams. Similarly, the perceiving and judging functions of MBTI (sensing, intuition, thinking, feeling) describe how information is understood and interpreted, and the approach to making rational decisions.

The outer layer of the Co-Lab Styles diagram indicates the *motivations* of the six types. The Explorer and Connector styles tend to be motivated by Autonomy (the desire to be self directed) whereas Influencers and Cultivators are motivated by Mastery (the urge to become more skilled).

⁸ For further reading on the Experiential Learning Model and Learning Styles Inventory see Kolb, D. A. and Fry, R. (1975) Toward an applied theory of experiential learning. in C. Cooper (ed.), *Theories of Group Process*, London: John Wiley.

Activators and Producers tend to be more motivated by Purpose (the desire to do something that has meaning and is important).

3.2 How the test works

The Co-Lab tool proposes a series of statements and asks the user for their level of agreement against each. Each of the statements has been designed to against a typical trait of one of the roles and they are considered exclusively, i.e. a single statement applies to only one role.

Based on the users' level of agreement (strongly agree, agree, slightly agree, disagree) a score is assigned to each statement. The sum of these then provides a profile of the users' preference for each role. There is [paper-based version](#) of the test and an [online](#) version, from which the data in this report are taken.



COLLABORATION STYLES TEST.

"Coming together is a beginning. Keeping together is progress. Working together is success."

HENRY FORD



	STRONGLY AGREE (10PTS)	AGREE (7PTS)	SLIGHTLY AGREE (3PTS)	DISAGREE (1PT)
Q1 I get a sense of satisfaction from helping others succeed.				
Q2 I am very comfortable acting as a spokesperson for my team.				
Q3 I am the one that other people rely on to make things happen.				
Q4 I help others to open up and share what they are really thinking and feeling.				
Q5 I like to get going straight away when starting a new project.				
Q6 I am able to spot important facts and convey them into a compelling story.				
Q7 I find it easy to assess what other team members want and need.				
Q8 I am able to invent lots of potential solutions when faced with a new challenge.				
Q9 Other people tend to follow my lead.				
Q10 I am quick to spot when someone in the team is feeling awkward or uncomfortable.				
Q11 I enjoy introducing friends or business associates to each other.				
Q12 My team members frequently ask me for help to come up with new ideas.				
Q13 I am successful at negotiating organisational politics.				
Q14 Team members seek me out for help, advice and trusted recommendations.				
Q15 In group discussions I tend to look for common points of agreement.				
Q16 I maintain a sense of humour, even when the going gets tough.				
Q17 I am very curious about the underlying causes of a problem.				
Q18 I respect a person's viewpoint, even if I don't agree with it.				



CONNECTORS
Q11 + Q15 + Q18 =pts

PRODUCERS
Q3 + Q13 + Q16 =pts

ACTIVATORS
Q5 + Q9 + Q14 =pts

CULTIVATORS
Q1 + Q7 + Q10 =pts

INFLUENCERS
Q2 + Q4 + Q6 =pts

EXPLORERS
Q8 + Q12 + Q17 =pts

Figure 2. Co-Lab Assessment (paper-based version)

The test discriminates well between styles, whilst reflecting the reality that many individuals will have broad capabilities and a mixture of strengths. Amongst the sample of Co-Lab tests undertaken to date, the proportions of respondents against style preferences is: 54% one style, 26% two styles, 11% three styles, 5% four styles, 5% five styles, 2% all six styles.

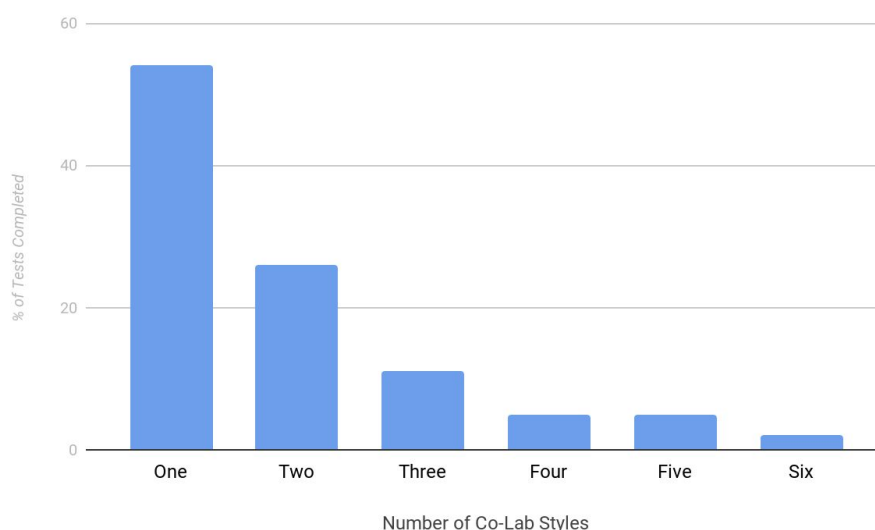


Figure 3. Proportion of multiple Co-Lab style preferences (from a maximum of 6)

4. History of Development

The development of the 100%Open Co-Lab Test has been inspired by many years of research and application, building on other models. A simple survey of inter-personal effectiveness tools and publications is shown in the diagram below. These are considered on a spectrum between:

1. those that apply more intrinsically, being centred on individual traits and preferences, and those that apply more extrinsically, i.e. where it is the combination of and/or interaction between these individuals that is of greatest focus, and
2. those that originate from theoretical or academic principles vs. those developed empirically, for example primarily through observation and reflection of individuals and teams in action.

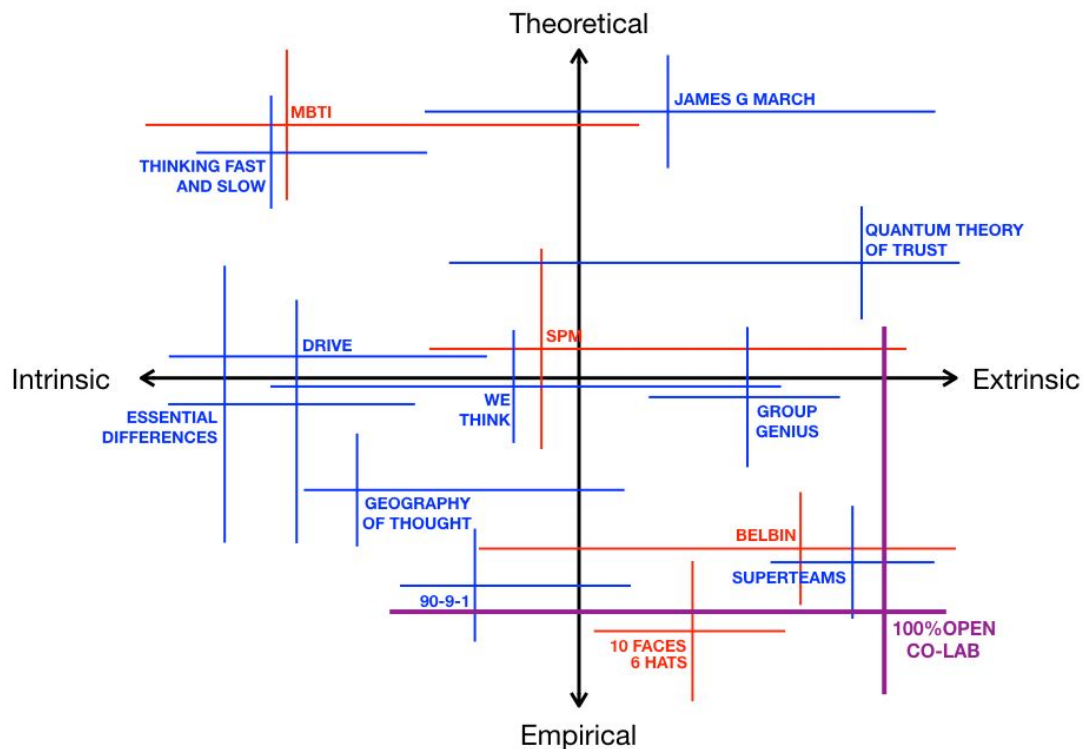


Figure 4. Subjective comparison of tools (in red) and published literature (in blue) used in the development of Co-Lab (in purple)

Where Co-Lab differs from a number of these tools is in its original scope and subsequent design. The philosophy behind Co-Lab is to understand, at the individual level, the design of teams for the purpose of collaborating at *open innovation* rather than more general “high performance”.

These models helped influence the Collaboration Style Test’s development, therefore it is understandable that there are similarities for example to the Belbin team roles and the Spony Profiling Model (SPM). However, Belbin or SPM are generic approaches to understanding team performance based on both an individual’s characteristics and preferences, and their job functions within the team. Co-Lab takes this a stage further by specifying defining the environment (*open innovation*) that the team should excel within, and then defining the combination of roles to enable this.

As an example of how the Co-Lab fits with other models (see also Table 1.) we here consider the similarities and differences compared with the 9 [Belbin Team Roles](#).

Connector - Elements of Shaper and Teamworker

Producer - Elements of Teamworker, Completer Finisher and Monitor Evaluator

Activator - Elements of Shaper, Implementer, Completer Finisher, Teamworker

Influencer - Largely missing, some elements of Teamworker

Explorer - Elements of Plant and Teamworker

Cultivator - Elements of Completer Finisher and Teamworker.

1. **None of the Co-Lab styles maps onto the Team Role of Specialist. In open innovation, the aim is to connect internal experts within the organisation with external experts and subject-matter innovators. The notion of expertise is therefore a function of their technical contribution to an open innovation challenge or programme rather than any personal collaboration style. A similar observation is true of many of the Belbin Team Roles. Whilst they do attribute personal strengths and weaknesses to each role the overall role is defined by a job description within a team.**
2. **Elements of a Teamworker (such as versatility, perceptiveness and cooperativeness) are common across the 6 Co-Lab styles. Members of open innovation teams all need to exhibit the ability and leadership qualities for team working and it is this reason that the design of the Co-Lab test eschewed this as a specific category.**
3. **The Team Role of Influencer does not seem to have any direct equivalent in the Belkin Team Roles. This Collaboration Style is important for open innovation; communicating succinct needs outside the organisation and being well-connected to the outside world.**

From this comparison it would seem clear that Belbin Team Roles would be particularly useful within a highly structured organisation that requires a team to deliver routine, clearly specified and bounded tasks within stable teams. The Co-Lab Styles Test would be more helpful for highly networked organisations that assemble teams, both within and between organisations, for specific projects.

The Co-Lab Styles Test has also been used to examine internal innovation teams from organisations such as Goodyear, Unilever and the MOD's Dstl in order to prepare or improve their performance across organisational units or prior to undertaking open innovation programmes.

5. Discussion and Analysis to date

5.1 Numbers, history, proportions

There have been over 5000 Co-Lab tests⁹ in the 4 years from September 2013 to August 2017. This sample, drawn from 100%Open clients and contacts, is broadly representative of professional innovators rather than a representative sample of populations. The breakdown of preferences for each role is:¹⁰

49.8% Cultivator

38.7% Explorer

35.9% Influencer

32.6% Activator

25.2% Connector

⁹ at the time of writing this article this stands at 5476 Co-Lab tests undertaken

¹⁰ note that this is not a simple one to one mapping; a single individual is often described as having more than one style

16.5% Producer

Note that the percentages add up to more than 100; 199% at the time of writing. This means that each participant had a mean of 2.0 roles ascribed to him or her, reflecting human complexity and the ability to operate in more than one mode. This contrasts with other tests where the emphasis is putting respondents into discrete boxes and emphasising their distinctiveness.

Similarly, Co-Lab styles are thought to be mutable over time with training and the increased focus on collaboration that taking the test brings. 100%Open describes the concept of 'Business Empathy' as "the ability to see a business collaborator's point of view leading to more balanced, fruitful and long-lasting partnership". Knowing and understanding the Co-Lab Style of oneself and collaborators forms part of such Business Empathy along with other 100%Open tools such as the [Collaboration Quotient](#) (understanding how you and your organisation differ) and [Open Organisation](#) (understanding an organisation's capacity for collaboration) tests. A consequence of knowing the style(s) of your partners is that conflict can be minimised - one criticises the style rather than the person. Furthermore, those people with multiple styles can choose to emphasise or de-emphasise certain traits and, over time, develop the self-awareness to change.

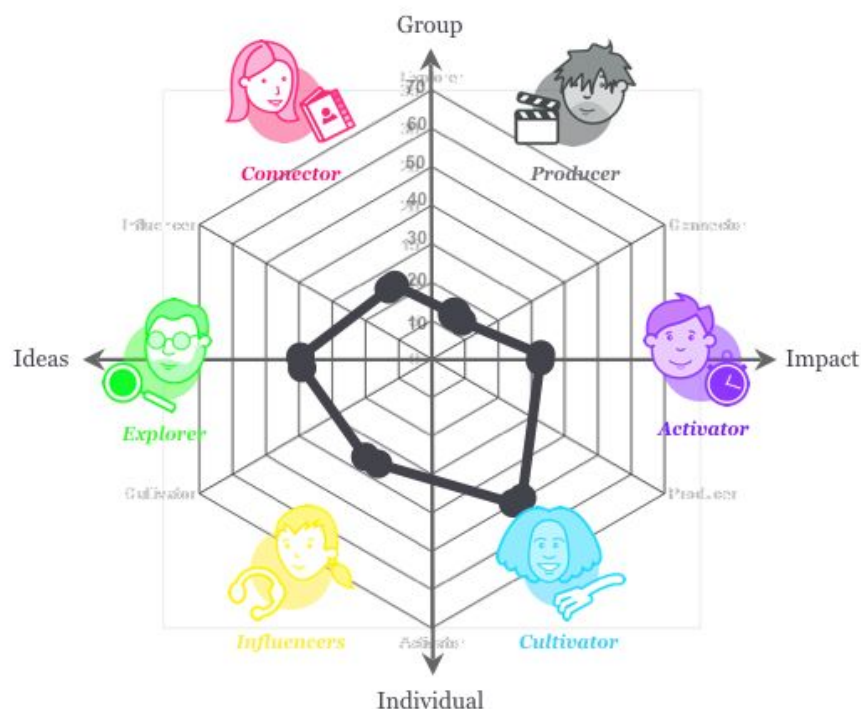


Figure 5. Dominant Co-Lab traits from all respondents to the online Co-Lab assessment

There are limited data available on other sample demographics. From an analysis of email addresses however we can tell the following:

- Respondents originate from over 24 countries, with the UK and South America over represented
- The gender balance of respondents is 51:49 female:male
- There is a difference between male and female styles - females are more likely to be Producers and Influencers compared to males who are more likely to be Explorers

5.2 Types of organisations

- There have been 1530 organisations (out of 4508 analysed records) to have taken the test - a mean of 3 users per organisation with the largest sample of 341 employees
- 55% have a .com domain compared to 2% .org so the sample is mainly from commercial organisations rather than public bodies
- Approximately 50% of respondents work for corporate multinationals
- There are 5% academics in the database

5.3 Proof of effectiveness

The Co-Lab test has been used in over 100 workshops around the world. In this context, the test's main utility is to engender discussion within a team or between collaborators. The majority of respondents, an estimated 80%, subjectively agree with their Co-Lab style classification, the main reason for questioning being multiple styles.

Proof of effectiveness of the Co-Lab Styles test is found in two ways: In diagnosing a team's performance, and in increasing team performance.

5.3.1 Case Study - Diagnosing Team Performance

As a simple evaluation of its utility within a single organisation the Co-Lab test has been undertaken by over 50 staff at a science and technology organisation in the public sector. Whilst the employees are all of one nationality, within this they are a good mix of diversity (age, gender, race) and educated typically to degree-level or higher. The organisation's role is a balance between conceptual and early stage research and development, evidence-based decision making, and specialist testing and manufacturing.

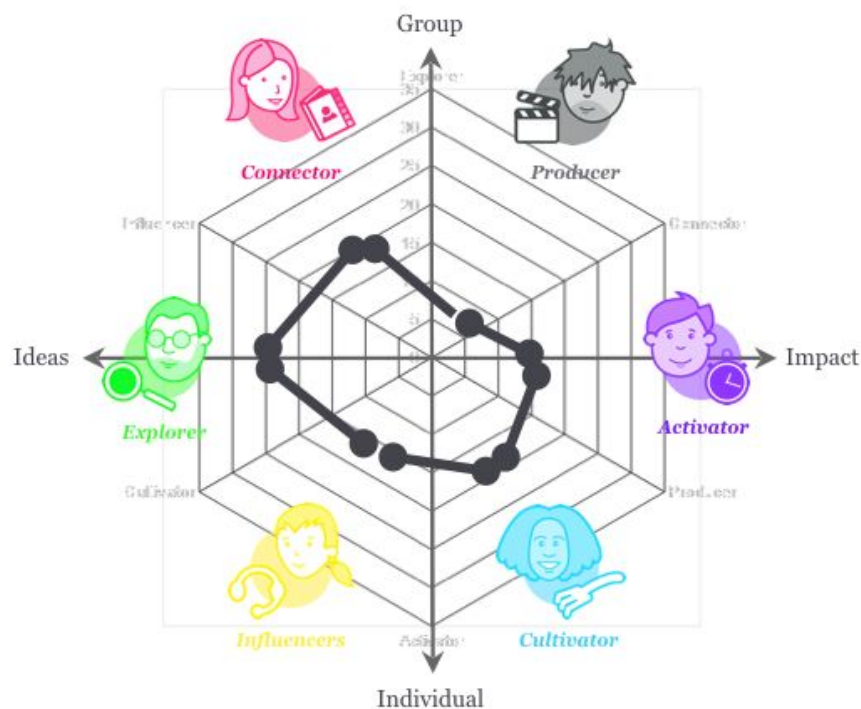


Figure 6. Dominant Co-Lab traits at a science and technology organisation

In terms of preferred roles, this organisation has fewer Co-Lab styles per employee population, with averages of 1.56 compared with 1.99 respectively. They have a higher than average level of Explorers, followed by Connectors and Cultivators. They have a lower than average level of Activators and Influencers, with Producers being the lowest expressed preferred role. These preferences compare well with the organisation's emphasis on explorative R&D.

This can be taken a stage further by plotting the results of preferred roles on a plot of ideas vs. impact and individual vs. group (behaviour) to understand the typical traits and capabilities of teams within the sample. What the data shows is that, in terms of stated team capabilities, the organisation is strongest at cooperative ways of working and weakest at collaborative ways of working. In terms of demonstrating impact through *innovation*, they are strongest at an individual level, rather than as a group.

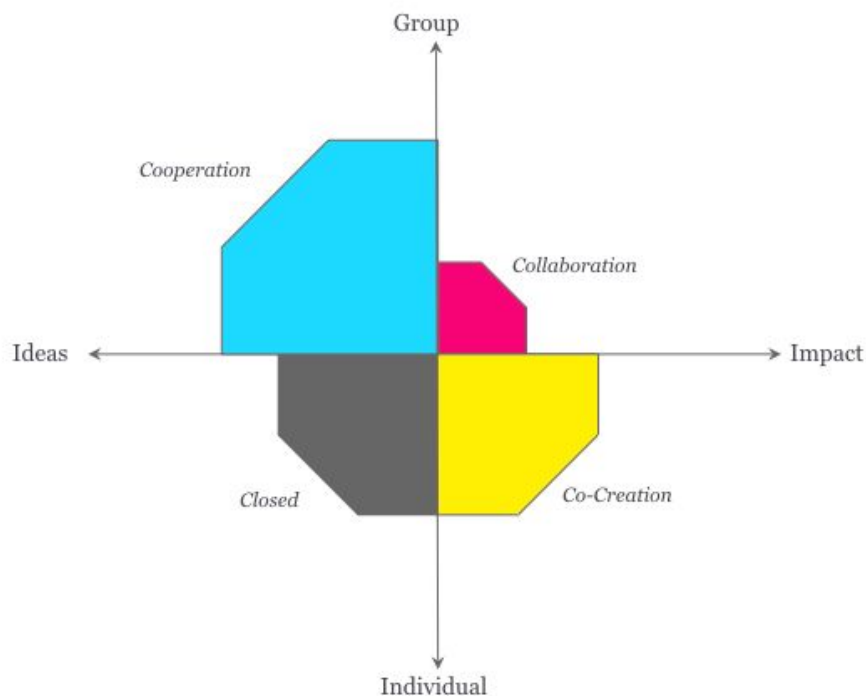


Figure 7. Co-Lab team capabilities at a science and technology organisation

Proof of effectiveness of the Co-Lab Styles test is found in three ways: In diagnosing a team's performance; in creating balanced teams; in increasing team performance. Figures 6 and 7 suggests several traits of the staffs' approach to open innovation, and by inference that of the organisation also.

Firstly, at an individual level they are equally focussed on creating new ideas and delivering impact with those which already exist. This is a typical trait of an R&D organisation where they are responsible for a constant stream of new ideas in order to take the most promising through to development. However it is equally telling that, with no significant manufacturing capability, the team capability of *impact* is smaller than that of ideas. This is definitely not suggesting that they exhibit little impact for their work, rather that in their line of business the real world impact is delivered by others further along the production process.

In terms of individual versus group behaviour, it is noticeable that the sample from this organisation prefer to socialise ideas with each other rather than develop these alone. However, whilst this appears very strong at the level of cooperation, this is not the case in a true collaboration sense. This suggests that there is good cross-pollination, discussion and challenge of ideas at the early stage. When those ideas are then downselected and developed further, teams are formed which essentially contain all of the relevant expertise within themselves, without needing significant input from outside. Whilst this may provide focus and drive to deliver against

an idea concept, it does risk not having sufficient ongoing challenge and evolution throughout the development, i.e. the destination may be determined early on and the team works tirelessly to get there, rather than adopting a more agile approach to development stimulated by external challenge.

5.3.2 Case Study - Enhancing Team Performance

The Co-Lab test was taken by 39 Omani CEOs as part of a 2017 programme of business education in which people were allocated to 6 teams and given projects that were important to national economic growth and development. The allocation into teams was not influenced by each team member's Co-Lab style; there was no attempt to balance or polarise any team. Throughout the 9 month programme each team's Co-Lab profile, having been measured, became the subject of repeated focus in workshops in order to increase the likelihood of successful project outcomes.

The cohort sample as a whole was largely typical, but with a larger proportion of Producers. The experience of this programme was that the cohort as a whole were indeed happy working in groups and communicating with sensitivity. However it was notable that compared to other commercial cohorts, this group became most motivated by process design rather than by, for example, setting milestones and measuring effectiveness.

Table 3. Summary of Co-Lab *Producer* archetype

	Description	Strengths	Weaknesses
Producers	Resourceful and knowledgeable, you enjoy taking responsibility for the quality of your team's contribution and output. You are happiest working in a group and enjoy inventing new processes and measuring progress. You help facilitate teams by establishing and agreeing on rules of operation and cultural norms, and this helps get results. Having time to think and reflect is the best way for you to learn, while you are motivated by putting teams together and arranging capabilities and resources into effective combinations.	Understanding everyone's diverse motivations Navigating challenges Communicating with sensitivity	Shows more interest in the process than results

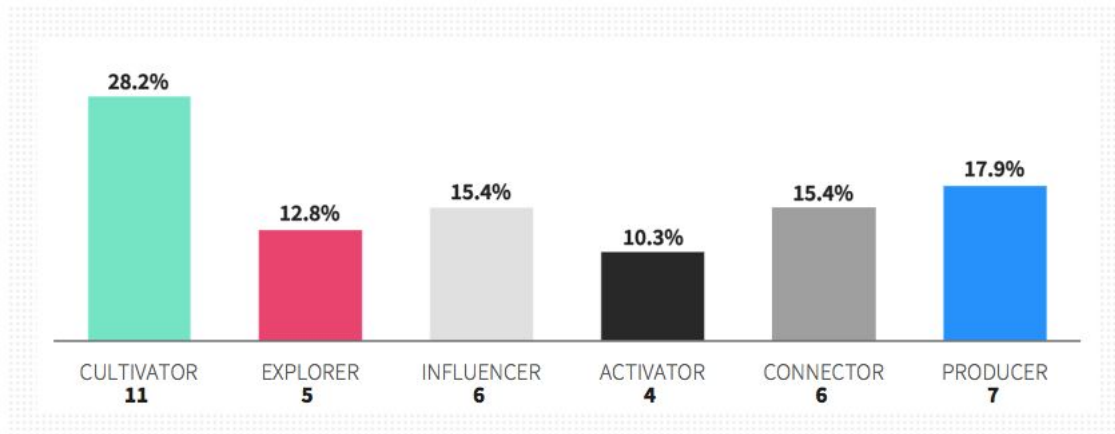


Figure 8. Co-Lab style incidences amongst 39 Omani CEOs

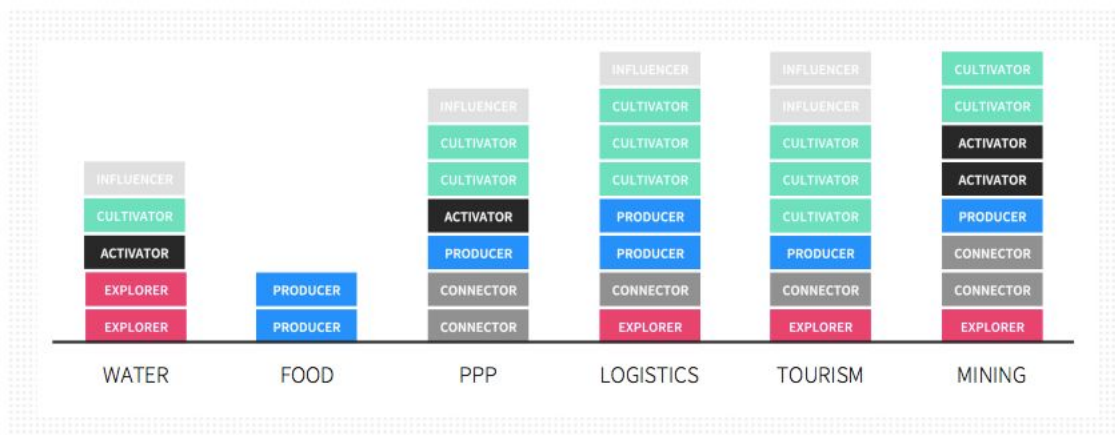


Figure 9. Co-Lab style preferences of the 39 Omani CEOs (by sector)

Furthermore, the dynamics within each group were markedly different for the first 3 months of the programme before team members learned how to moderate, channel or compensate for their Co-Lab styles. For example Group 6, with the most Activators, were the first to decide the scope and plan for their project and were two months ahead of the other groups. Conversely, Group 6, with no Activators and more dominated by Cultivators and Influencers, sought consensus and

spent time nurturing each other's ideas, brainstorming new ideas and seeking the approval of their project sponsor. Their project was less focused and gained less initial traction as a result.

At the time of writing each project is still being completed and evaluated. The key observation of the group members and project organisers (a well-known international business school) so far is that the 2017 cohort has outperformed previous year's in terms of group cohesion and project effectiveness.

6. The Future

100%Open will continue to develop the Co-Lab Styles test in the following ways:

- It is possible that the preponderance of Cultivators is masking subtle effects and so the firm is conducting tests on the diagnostic questions in order to ascertain the benefits of changing them
- 100%Open has noticed a drift upwards in the mean number of styles per respondent from 1.5 in 2014 to 2.0 in 2017; an analysis is being performed to determine whether this is due to sample composition or perhaps a wider change in business practices
- Further research will be conducted on national characteristics, organisation types, and gendered styles as sample sizes allow
- The Co-Lab Styles test is currently being developed as part of a specialised tool kit designed to increase business empathy