# **Engineering Progression Framework v2**

## Initial remarks

This is an evolution of our engineering progression framework. This document is a perpetual work-in-progress, and will never be "done". There are a few guiding pillars for engineering progression at Monzo:

- We will focus on the impact an individual engineer can have on driving Monzo forwards, rather than specific behaviours
- **Scope** is an additional measure for different levels of seniority. As Monzo grows, so should the size or reach of the problems we encounter as engineers.
- We have aimed to consolidate behaviours down into essentials. This framework does not intend to be an exhaustive list of everything an engineer does or can do, but instead articulate the important distinctions between levels.
- Behaviours should be broad enough to factor in the numerous different ways an engineer can contribute effectively. As an example: we should not list specific tasks such as "writes complex RPC handlers" but instead articulate the standards of technical contribution we should expect from engineers of different levels. As a result, our framework will need more interpretation, and is likely to be ineffective when used independently without your manager. We do not wish to create an exercise that can be "checkboxed" to completion.
- We wish to do away with levelling exercises or calculations. Attempting to boil performance and progression down to numbers and equations is lazy, and leaves little room for the different ways engineers can add value. Instead we rely on managers to clearly articulate how an engineer is meeting the scope and impact of each level, and that they are aligning with our technical principles as a company.
- We do not wish to have separate frameworks for each discipline. Our framework should focus on the practice of engineering itself, it should not matter which programming language you choose to use.

Levels are cumulative. Particularly within the technical skill and behaviours categories, we expect engineers to be demonstrating the contents of previous levels in addition to their own level. As an example: We expect level 3 engineers to also be proactively testing their work, despite this being a level 2 behaviour.

### Impact

Impact is the main driver for progression at Monzo. Put simply, impact measures your sphere of influence and individual input on our success as a business, through contributing to Monzo's mission and goals. The area of the business you work in may mean you can have impact in different ways - for instance through contributing to growth, helping with efficiency or cost reduction, meeting regulatory requirements, or more. You may also have impact in other indirect ways, for example improving engineering practices, or helping others to grow.

Focusing on impact enables us to reward engineers who "get stuff done" without them needing to perform specific routines. We believe impact results from the combination of building technical skill, having the opportunity to demonstrate it, learning from that experience over time, and coupling it with important behaviours and core skills.

### **Excellence here looks like**

- The work you choose to do drives team, discipline and business goals forward (relevant to the scope of your role).
- You proactively identify opportunities to further goals within engineering, and bring clarity to opportunities in order to prioritise them.
- You "get things done". You work for the team, and are regarded as a highly effective contributor by your peers.

## **Technical Skills**

This aspect is about how you apply your technical skills and hone your craft, and documents the type of behaviours that measure the effectiveness of an engineer's technical contribution at different levels of complexity and ambiguity. Think of this as "how you do your work".

Our previous iteration was called "Mastery", and focussed on discrete behaviours. We found this led to engineers "checkboxing" their progression, and was often overly specific to certain areas of the business. Behaviours in this area should not detract engineers from doing what is most impactful for their team and Monzo. Instead, this iteration focuses on measuring technical contribution via quality, testability, performance and ability to design and critique designs. Your technical skills will gradually scale and improve with experience.

#### **Excellence here looks like**

- Your code and technical contribution is regarded as high quality by your peers and those above you in the framework.
- You can efficiently design systems to solve business problems, and can resolve ambiguity, both at the technical and product level.
- Your systems are designed with the appropriate level of complexity for the problem at hand. Your software is as <u>simple as</u> <u>possible</u>, <u>but no simpler</u>.
- Your work is resilient, well tested and scales to meet customer growth expectations

### Behaviours

Behaviours are a collection of expectations and development areas for engineers, that do not fall into the categories of *technical* skill and impact. They encompass a range of core skills that we expect engineers at Monzo to embody.

In the previous iteration of our framework these were further broken down into influence, communication and leadership, however in this iteration we're bringing them together.

Through your behaviour you set an example to those around you. By modelling great behaviours you lead by example, and by being self-aware you know *when* you are setting a great example. Your behaviours show that you're growing good habits, and cultivating qualities that make an excellent engineer, rather than unintentionally doing the "right thing" by luck.

## Usage of the progression framework

#### How the framework should be used

The purpose of this document, and associated framework is to guide conversations around performance and progression between managers and engineers. This articulates the expectations of each broad level, the level of impact we expect individuals to bring to business problems, and the manner in which engineers should be conducting their work. This document is not designed to be useful as a standalone tool. **This is a compass, not a GPS**.

Progression from one (sub-)level to the next will be a conversation between the individual and their manager. To reiterate, this should not be seen as a checkbox exercise. Some individuals may move up a level without having experienced certain skills or behaviours, whilst also giving confidence that they're meeting the level above. In other situations a controlling weakness may prevent the individual moving forwards. The framework does not intend to codify every possible situation, instead laying out expectations in broad strokes.

For any promotion cases, managers and engineers will together need to be able to articulate clearly how the engineer has demonstrated the required impact for the level they are being promoted to, and should have demonstrated experience in the related technical skill and behaviours in order to have that impact.

We will document the promotions process separately.

#### How the framework should not be used

This framework should not be used to mathematically calculate level. Different behaviours are important in different ways, and attempting to create algorithms or formulae to support conversations naively assumes that each behaviour is important to different parts of the business in the same way. In the past "levelling exercises" have been used to quantify progression, but going forwards this should not be the approach.

# Framework

The levels below represent a career's worth of progression through engineering at Monzo. Levels are broadly cumulative, each one building on what comes before.

## Level 1: Engineer

### Scope: V Task

Summary: A new engineer, with high potential, picking up the fundamentals they need to be successful in their squad.

Level 1 engineers are at the start of their software engineering career. They're working on well-defined tasks and are supported by the team when stuck. They're expected to ask lots of questions! As someone progresses toward Level 2 they should start to gain confidence to pick up larger or less well-defined tasks with less required support.

Impact	
Delivers well-defined tasks, in collaboration with more senior engineers	
Technical skills	Behaviours
Writes well tested code and documentation in-line with our engineering principles. Demonstrates understanding of common Software Engineering concepts.	<ul> <li>Proactively learns from the work of others.</li> <li>Proactively communicates to their team what they are working on, why, how it's going and what help they need.</li> <li>Asks questions to understand how to write effective code, and</li> </ul>
Works to develop their usage of tooling and systems, including their development environment, source control, and internal Monzo tooling.	prioritises their own learning to better serve their squad. Proactively improves the test coverage and documentation of existing code

## Level 2: Engineer

#### Scope: V Task

Summary: A productive and reliable engineer working effectively within a squad

Level 2 defines engineers who have learned the ropes, and are building the foundation to being solid individual contributors at Monzo. Level 2 engineers are focussed on tasks assigned to them within their team, typically working with the support of other engineers to reliably deliver these\*.

We expect all Level 1 and Level 2 engineers at Monzo to show positive trajectory towards Level 3, and generally expect people to progress from 2A to 3A within the course of 1-2 years at Monzo.

\* Many squads at Monzo have fewer mobile engineers than other disciplines. Because of this, we expect mobile engineers to be able to work independently in a squad from level 2c+.

Impact		
Delivers tasks and designs effective solutions to product features or small scope engineering challenges in their area of the business.		
Makes steps towards independently owning the development of a feature, or problem space, including the ability to identify, define, and scope problems.		
Breaks down medium sized engineering problems in collaboration with more senior engineers.		
Demonstrates ownership of smaller problem spaces, and repeatedly achieving successful outcomes for those problems.		
Technical skills	Behaviours	

Writes clear, well separated code that reflects coding guidelines and conventions, and can be easily understood by others.	Gives direct feedback to others in their team, including giving useful and actionable feedback after reviewing their work. Accepts feedback from others graciously.
Proactively tests their work appropriately.	Makes consistent, steady progress on work assigned to them.
Provides clear and actionable technical feedback on pull requests. Aligns with our engineering principles when giving feedback on other's code.	Proactively communicates progress to their team, attempts to unblock themselves, but seeks timely guidance where needed.
Takes responsibility for the quality of their work. Owns and actions fixing defects.	Proactively documents existing and new features or projects
Demonstrating awareness of key non-functional principles in their discipline/domain (accessibility, performance, security, etc)	Makes consistent contributions as a floater/release owner
and evidence of actioning them.	

## Level 3: Engineer

#### Scope: 🍪 Project or feature

Summary: A strong individual contributor. Responsible for the entire lifecycle of a project or feature

Level 3 defines a solid individual contributor at Monzo, able to take on any technical problem related to their discipline or domain confidently, and can clearly articulate how they're working with others to help their team reach its goals. While we don't expect any engineer to work alone, Level 3 engineers are highly independently capable, and can lead on the design and implementation of a feature or project. A Level 3 engineer not only delivers their own work, but also demonstrates the ability to bring up others around them, for example through activities such as onboarding engineers into their team, or mentoring less experienced engineers working with them. They're engaged in the challenges, opportunities and risks faced by their squad, collective and discipline – taking part in the initiatives where they're best placed to help.

Our expectation is that all Monzo engineers are capable of reaching Level 3 within an appropriate timescale (see previous levels), but they may not wish to take on additional responsibilities beyond this level, and that's OK. Progression through level 3 to level 4 would usually take up to 2 years experience, as a guide.

Impact

Helping the squad deliver work through:

- Owning, implementing and delivering medium sized features or projects within a squad
- Confidently breaking down small to medium sized engineering problems, and leading other engineers to solve them

Onboarding or mentoring of engineers in their team well leads to an overall higher performing set of people.

Relied upon to be a trusted problem solver, capable of leading the resolution of critical bugs or incidents related to their work or

#### area of expertise.

Enthusiastically engages with squad, Collective, or discipline-level initiatives where they're best placed to help, bringing about positive change from their involvement.

Able to identify and address existing gaps in the observability and monitoring of systems and independently manage escalations for their squad, collective and discipline for their area.

Technical skills	Behaviours
Is able to work with their team to solve almost any technical problem in their discipline.	Works confidently with other domains (e.g. Design, Legal, Data, Risk) to help them understand the work the engineer's team is doing.
<ul><li>Highly proficient in their engineering domain. Writes code that is regarded by their peers as high quality.</li><li>Provides context and clarity to their work through</li></ul>	Regularly mentors other engineers, particularly those less experienced than themselves. Able to onboard new engineers into their team.
documentation/proposals/runbooks so that others can easily understand what's being built, why it was done that way, so it can be built upon.	Proactively seeks and gives timely, actionable feedback in their team. Feedback given has a positive impact on the overall contribution of others and their team.
Balances short term needs against long term stability when responding to incidents or production issues. Proactively identifies problems in our product or platform.	Helps grow the engineering function by participating in the hiring process, giving effective feedback in scorecards and during debriefs.
Improves areas of the code they work on. Leaves things better than they found them.	Effectively escalates problems that have a wider scope than their team or work, supporting to bring it to a successful conclusion.
	Can be relied on to consistently deliver work, able to solve project or feature-level problems themselves but escalates and seeks help quickly when unexpected challenges or blockers

emerge.
Having already demonstrated an ability to work with non-functional concepts, additionally promotes good practices in areas such as accessibility, performance, and security to help other engineers deepen their knowledge.
Works confidently and effectively, and persists when faced with uncertainty or ambiguity. Pulls in support from around the company where needed.
Proactively contributes to the observability of systems.
Effectively identifies gaps in alerts and run books and proactively improves the stability of our systems.

## Level 4: Senior engineer

#### Scope: 👤 Team or Domain

Summary: An experienced individual contributor, leading in a team or domain area

The scope and impact of a Level 4 engineer is typically felt at the team or domain level, with their influence beginning to spread wider across the business. It should be clear to see how a Level 4 engineer has contributed to a team achieving their goals for a quarter. The engineer brings distinct individual strengths, is self-aware of what these are, and are impactful through these.

In the past, progression to Level 4 focused heavily on leadership abilities. We're now keen to recognise that impact at this scale can be made in various ways (including by more generalist engineers), and that there are different 'shapes' of engineer at Level 4. Depending on the individual situation, someone may skew more heavily towards certain behaviours and technical skills than others.

- At one end of the continuum we have the **tech lead**, who excels at leading engineering in their team, effectively working with other disciplines such as product and design, or stakeholders such as finance and data analysts. Whilst they may be involved in running rituals, their impact is felt more around the engineering culture they foster through their work: tech leads cultivate the design of performant systems that scale and meet customer needs, encouraging and supporting their team to build software that is high quality and tested sufficiently. It's important to note that some engineers may wear the tech lead hat before they reach Level 4, but not yet be meeting the level expectations in other ways; L4 and tech lead are not synonymous.
- The other end of the scale has the **domain expert**, who is a collective or company wide subject matter expert in one or more areas of our platform, whether that's a set of complex services or problems, such as Mastercard, or a particular technology such as Kafka. The domain expert drives technology forward for Monzo, and is typically the person to lead on systems design in that area, sharing proposals to level up others with their work.
- In between will be people who are technically competent, excellent team members and highly productive but none of whom are a specific 'expert' in a particular thing or want to be a tech lead.

Level 4 is a challenging step up from Level 3, and with it comes new responsibilities and expectations. Not every engineer will be capable of, or want to reach Level 4, but Monzo will always need engineers at this level and there will be opportunities to progress to this point should someone be willing and able. To progress through this level will likely take 2-3 years.

#### Impact

Contributes to their team or domain meeting goals through successfully leading and consistently delivering on projects of highly ambiguous scope, high complexity and critical business impact.

Can be deployed to highest priority business problems or fires, can quickly resolve them and help the business understand how to avoid them in future.

Proactively contributes to the betterment of other engineers in the company, through sponsoring, mentoring and providing constructive, candid feedback.

Proactively gives technical and strategic feedback on projects relevant to their expertise that leads to better outcomes.

Impacts the trajectory of the company both through working on the most impactful problems and being able to bring about change with effective momentum.

Links technical contribution back to business impact for their team or area, and helps others to buy into this.

Technical skills	Behaviours
Consistently leads their squad to good outcomes from a technical perspective, ensuring appropriate engineering decisions are made to factor in technical debt, systems design,	Can clearly and confidently articulate risk of technical problems to non technical stakeholders (e.g legal, compliance)
stability/reliability, monitoring/observability and business need. Is regularly recognized in their team and collective for highly impactful technical contributions of the highest quality.	Communicates effectively when representing Monzo to external stakeholders (e.g auditors, regulators, third-parties, or industry groups) when appropriate
	Actively and regularly offers well considered contributions to the

Proposes changes to technical scope to handle changing business priorities or urgency.	roadmap of their team or business area.
Leads the refactoring of complex systems or problems when it is warranted. Can make pragmatic trade-offs between	Fosters effective collaboration between product, engineering and design.
perfection and technical debt which aligns with our priorities as a business, including how to repay debt.	Demonstrates product-awareness. Offers valuable contributions to quarterly planning rituals, and works with the PM or team lead on setting the vision for a squad.
Has the skills to competently work on complex and unknown problems under pressure (e.g. debugging complex production issues at speed, or leading the resolution of critical or major incidents)	Ensures their squad is focusing on work that will drive forward quarterly goals or business objectives, whilst reducing the operational impact for engineers and COps.
Can demonstrate their technical skills outside of code, and leads the design process for complex technical problems in their team or collective.	Repeatedly consulted for advice by engineers from different squads or collectives.
Contributes to architecture forums, takes part in initiatives to improve the practices of the engineering discipline.	Proactively stays up to date with technology trends in their area, and uses this knowledge to contribute thoughts on their squad's strategy.
	Works to enable groups of others to improve coding standards and awareness of best practices around non-functional requirements (e.g. performance, testability, scale, security)
	Tackles problems before they can do harm, knowing which levers to pull to make change happen.

## Level 5: Staff & Senior staff engineer

#### Scope: 🎦 Collective or Discipline

Summary: A highly experienced individual leader, leading in a large domain or collective.

Staff and Senior Staff are senior leadership "Director Level" roles within Monzo. The engineer should be highly confident in the role that they can personally play to be instrumental in helping Monzo achieve our collective and business goals. They do this by focusing on high impact, high value work which likely involves our largest and most ambiguous problems, and by breaking down large long-term projects and mobilising teams to deliver them.

As an engineer they're a technical authority at Monzo, with influence and respect across multiple squads, disciplines and projects. They proactively drive cross-team initiatives, championing our engineering principles and guiding others through pragmatic technical choices and trade-offs. They actively help lead engineering technology strategy for their Collective or Discipline, not only in the present, but for the future.

Progression to Level 5 will be possible for many engineers at Monzo, but the opportunities to do so will be more limited, taking into account their discipline and area of the company.

Impact		
Meaningfully contributes to achieving company and collective goals and directly increases the company's value over time.		
Sought out by others for contribution on our most pressing and highest priority business challenges because they're known to be effective.		
Leads large, strategic, complex engineering projects - often crossing collective boundaries.		
Drives architecture and systems design across multiple squads in a collective.		

Regularly and positively influences the direction of systems design across the company.

Proactively sponsors, mentors, and helps to level-up more senior engineers.

Comfortably leads the resolution of any engineering problem related to their discipline, whether they have experienced it or not.

Technical skills	Behaviours
Leads architectural system designs on the most complex systems. Demonstrates high product awareness for areas of the business they are working with. Has a proven track record of implementing significant improvements in quality, performance, stability and scalability to code they work on. Fosters a culture of quality within their collective. Proactively champions measures to test work, and gets buy in from stakeholders when this is not appreciated. Can understand the context of multiple different work streams,	Understands importance of product-market fit and works closely with product leadership to ensure we're making the right decisions across one or more squads. Proactively identifies problems that challenge our scale or business direction. Effectively communicates these and supports changes to adapt to these challenges. Is widely considered an expert in one or more areas by their peers, and collective and company leadership. Steps up to lead when required, even if not explicitly asked of them. Regularly challenges their team or area to have a greater sense
and offer effective technical advice and support for those workstreams while still maintaining excellent velocity.	<ul> <li>Remains calm during incidents or critical company emergencies. Can influence and lead others to bring structure and clarity rather than chaos.</li> <li>Able to proactively propose strategy for engineering within their Collective/Discipline, and knows how to effectively get buy in and move this forward.</li> </ul>

	Able to effectively delegate to load balance their work where necessary, whilst also using this as an opportunity to bring up others.
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## Level 6: Principal engineer

#### Scope: 💼 Company

Summary: An engineering leader having impact across a broad area of the company, wider than a single collective or discipline.

As a Level 6 engineer an engineer will be leading on technical initiatives which directly address Monzo's most important needs, beyond a single Collective or Discipline. To do this, they'll be setting high level vision and strategy, and directly using their engineering knowledge and abilities to create solutions to our most challenging problems.

They're respected by both the wider Monzo engineering community, and the industry at large, because their past impact speaks for itself, both from work where they've been involved directly, and through appropriately working through others.

To move to and progress through Level 6 they'll be on an individual journey and their progression and goals will be very bespoke. These will be agreed with their line manager and other senior leaders around the business. There will be a difference between an engineer being a general L6, and one who is doing a very specific job (e.g. VP Architecture). Progression to L6 is not a given, and depends on having a specialism or unique skill that is critical to the company.

Impact

Able to significantly and directly impact both Monzo's success, and the success of Engineering as a discipline across the company (spanning more than individual sub-disciplines such as purely web, mobile, backend).

Impact is lasting - their work not only sets the business up well for the future, but also leaves a legacy to ensure that large problems only have to be revisited at an appropriate cadence.

The scale of their impact is felt business-wide, and they do this by acting as a multiplier (e.g. creating systems, tools, or introducing policies or patterns) to raise productivity, performance, and control.

Consistently puts in place measures to ensure strong engineering leadership in the future.

Through their involvement, Monzo's architecture is known to be robust and effective, with confidence in its scalability and strategy for the future.

Technical skills	Behaviours
Confident in setting out overall architectural vision on a company-wide scale, which has the ability to grow and flex effectively in line with business plans.	Thinks in terms of a 3-5 year future time horizon, helping others to see what's down the road, and what the implications are for now.
Able to identify root causes and initiate changes to the processes or technologies that underpin Monzo's engineering organisation.	Supports hiring our most senior engineering people. Cares about, and is involved in the wider business strategy;
Confident with huge scale complexity, and someone we would send to our very gnarliest problems.	doesn't just have a pure engineering focus. Ideally the person would also be able to contribute directly to the business strategy.
Capable of temporarily bolstering a team or business area to pair or write code on problems that are particularly complex, difficult, high impact, or novel.	Able to provide actionable direction to teams of multiple stakeholders even in the most challenging of situations.
Defines and sets our principles and patterns, including extending these to cover previously unknown spaces.	Effective at creating and getting buy in for a multi-year technology strategy across the company, from Board level to individual engineers.
Should be speaking or writing for internal and external consumption.	Able to make and communicate difficult decisions when necessary.
Recognised beyond Monzo as a leading expert in their field, and	Leads by example to proactively foster an inclusive, diverse, and

contribute back to it (or if not for some reason, their profile is one that is capable of this in the right situation)	positive engineering culture across the business.
Has the ability to spot where multiple disciplines are solving the same challenges, and can bring people together to solve these.	
Able to identify technology that can play a strategic enablement role to grow the business, finding opportunities worth investing in that can materially impact the commercial success of the business.	
Comfortable with leading Technology as a discipline, inclusive of engineering, data, and Agile.	