# **Engineering Progression Framework v4.0**

Status: Live

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### 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 articulates 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 *Engineers II* to also be proactively testing their work, despite this being an *Engineer I* 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 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 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.

## Associate Software Engineer (Level 10)

# Scope: **V** Task

Summary: A new engineer at the start of their career, focussed on expanding their knowledge and skill-set to further increase their impact within a team.

"Associate Software Engineers" are at the first stage of their software engineering career. They're contributing to the team's goals through executing on well defined tasks, with support from more experienced engineers. As someone early in their career, they're focussed on increasing their Software Engineering skill-set and knowledge at a high pace. So that they can start to deliver tasks with less support and progress towards "Engineer I".

"Associate Software Engineers" are expected to progress to "Engineer I" within one year at Monzo.

#### **Impact**

Delivers well-defined tasks, with support from more experienced engineers.

Improves their Software Engineering skill-set at a high pace. Focussed on accelerating their knowledge and mastery of their relevant programming language, data structures, common algorithms, development environment, version control and internal Monzo tooling.

Technical skills	Behaviours

Writes code and documentation in-line with our engineering principles. With support from other team members.

Starts to demonstrate understanding of common Software Engineering concepts.

Works to develop their usage of tooling and systems, including their development environment, source control, and internal Monzo tooling. Proactively seeks out feedback and takes action to accelerate their learning.

Proactively communicates progress and blockers when delivering tasks. Escalating quickly if stuck.

Invests in their own learning to better serve their team.

Demonstrates an ability to self-serve in seeking out new knowledge, with guidance from more experienced engineers.

Applies learnings so that similar tasks require less support over time.

# Engineer I (Level 20)

## Scope: **Task**

Summary: An engineer with high potential, developing the fundamentals they need to be successful in their team.

**"Engineer I"** engineers are in the earlier stages 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 "**Engineer II**" they should start to gain confidence to pick up larger or less well-defined tasks with less required support.

"Engineer I" engineers are expected to progress to "Engineer II" within one and a half years at Monzo.

#### **Impact**

Delivers well-defined tasks, in collaboration with more experienced engineers

Technical skills	Behaviours
Writes well tested code and documentation in-line with our engineering principles.	Proactively learns from the work of others through activities such as reading & commenting on pull requests and proposals their team produces.
Able to safely release code to production in collaboration with more experienced engineers.	Proactively communicates to their team what they are working on, why, how it's going and what help they need.
Demonstrates understanding of Monzo's system architecture.	Asks questions to understand how to write effective code, and prioritises their own learning to better serve their team.
Debugs and resolves issues related to their code changes in	Proactively improves the test coverage and documentation of

production.	existing code

## Engineer II (Level 30)

Scope: **Task** 

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

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

"Engineer II" engineers are expected to progress to "Engineer III" within 2 years at Monzo.

\* Many teams at Monzo have fewer mobile engineers than other disciplines. Because of this, we may expect mobile engineers to be able to work independently in a team from the "Engineer II" level.

#### **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
	Makes consistent contributions as a floater/release owner
Demonstrating awareness of key non-functional principles in their discipline/domain (accessibility, performance, security, etc) and evidence of actioning them.	

# Engineer III (Level 40)

## **Scope:** Project or feature

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

"Engineer III" 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, "Engineer III" engineers are highly independently capable, and can lead on the design and implementation of a feature or project. An "Engineer III" 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 team, 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 the "Engineer III" level within an appropriate timescale (see previous levels), but they may not wish to take on additional responsibilities beyond this level, and that's OK.

#### **Impact**

Helping the team deliver work through:

- Owning, implementing and delivering medium sized features or projects within a team
- 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.

Able to identify and address existing gaps in the observability and monitoring of systems and independently manage escalations

for their team, collective and discipline for their area.

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

Technical skills	Behaviours
Highly proficient in their engineering domain. Writes code that is regarded by their peers as high quality.  Provides context and clarity to their work through 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.  Balances short term needs against long term stability when responding to incidents or production issues.	Regularly mentors other engineers, particularly those less experienced than themselves. Able to onboard new engineers into their team.  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.  Helps grow the engineering function by participating in the hiring process, giving effective feedback in scorecards and during debriefs.
Proactively identifies problems in our product or platform. 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, helping 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.

Proactively contributes to the observability of systems.

Effectively identifies gaps in alerts and run books and proactively improves the stability of our systems.

## **Senior Engineers**

Senior Engineers come in different 'shapes' and depending on their individual situation, someone may skew more heavily towards certain behaviours or others.

- At one end of the continuum we have the tech lead, a person that fosters engineering culture for their team, highly impactful
  at building 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 the "Senior" level, but not yet be meeting the level expectations in other ways; Senior and tech lead are not
  synonymous.
- The other end of the scale has the domain expert, who is a collective wide subject matter expert in one or more areas, 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. Engineers in this group would leverage their technical and behavioural competencies, alongside their high levels of productivity, to effectively lead projects to successful outcomes for their team and collective. They are taking the lead in building stable and reliable production systems that are fit for purpose and scale.

Becoming a Senior Engineer is a challenging step up from "Engineer III", and with it comes new responsibilities and expectations. Not every engineer will want to reach a Senior level, 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.

# Senior Engineer (Level 50)

### Scope: Parge or complex projects and features

Summary: An experienced individual contributor that is starting to lead large, complex projects or features, or changes to existing features.

A "Senior Engineer" is able to take on technical problems related to their team and works harmoniously with their whole team to help it reach its goals. They can be relied upon to independently lead on the design and implementation of complex features and own the delivery of big projects, or big changes to existing systems or product surfaces either by themselves or with other engineers. They lead by example when it comes to quality production systems that can be maintained and managed with ease, good documentation, alerts and runbooks are inherently linked with their delivery.

Being both very technically competent and able to articulate challenging technical topics with stakeholders they consistently direct their impact to the highest leverage areas, whether it be mentoring and bringing up others in the team, or driving challenging architecture changes and refactorings. It should be clear to see how a "Senior" engineer has contributed to a team achieving their goals for a half.

#### **Impact**

Contributes to their team or domain meeting goals through successfully leading and consistently delivering on projects of ambiguous scope and/or high complexity.

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.

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 team, Collective, or discipline-level initiatives where they're best placed to help, bringing about positive change through their involvement.

Technical skills	Behaviours
Consistently leads the projects, squad and area to good outcomes from a technical perspective, ensuring appropriate engineering decisions are made to factor in technical debt, systems design, stability/reliability, monitoring/observability and business need.	Can clearly and confidently articulate risk of technical problems to non technical stakeholders (e.g legal, compliance)  Fosters effective collaboration between product, engineering and design.
Is regularly recognized in their team and collective for highly impactful technical contributions of the highest quality.	Repeatedly consulted for advice by engineers from different squads or collectives.
Proposes changes to technical scope to handle changing business priorities or urgency.  Leads the refactoring of complex systems or problems when it	Proactively stays up to date with technology trends in their area, and uses this knowledge to contribute thoughts on their squad's strategy.
is warranted. Can make pragmatic trade-offs between perfection and technical debt which aligns with our priorities as a business, including how to repay debt.	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)
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)	

Can demonstrate their technical skills outside of code, and leads the design process for complex technical problems in	
their team or collective.	

# Staff Engineer (Level 60)

### Scope: 🎨 Large or complex projects and features with widespread impact across an area

Summary: An experienced individual contributor with a track record of leading large, complex projects and holds the software quality bar for their team.

A "Staff Engineer" is a multiplier for any team. They are able to independently own ill-defined, highly ambiguous projects, driving forward not only the implementation of the work but also the design of the solution. Thinking holistically across Product, Design, Platform and Operations they are able to identify, coordinate and deliver a highly impactful solution to any problem, leading engineers around them and able to manage complex stakeholder scenarios. They are heavily involved in designing elegant solutions to complex problems and roadmaps to tackle them incrementally.

A "Staff Engineer" has a demonstrable impact on the quality, correctness and suitability of their team's work. The scope and impact of a "Staff Engineer" is evident at the team level, with their influence clearly having impact across their collective and beginning to impact across the wider business. A "Staff Engineer" will meaningfully contribute to setting team goals, working collaboratively across all disciplines. They meaningfully meet those goals during a quarter or half.

They work with the whole team to ship solutions whilst maintaining the bar for quality and execution. A "Staff Engineer" also brings distinct individual strengths, is self-aware of what these are, and are impactful through these. They are strong mentors, role models and coaches for all other engineers in their team.

#### **Impact**

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.

Leading highly ambiguous projects of critical business impact, driving the most complex systems and incidents to successful outcomes, balancing engineering, operational, regulatory and other priorities and impact across the organisation.

Helps the business understand how to avoid problems or fires in the future, creates plans and effectively helps execute them

Grows other engineers around them by proactively identifying opportunities for them, directing the right people to the right problems, provides support and feedback.

Technical skills	Behaviours
Contributes to architecture forums, takes part in initiatives to improve the practices of the engineering discipline.  Ensures the safe rollout of new products, features or changes through incremental releases, rollout plans, monitoring and metrics.  Understands the impact of making changes to connected systems, can plan and mitigate any negative impact.  Proactively improves the quality and longevity of systems when it's warranted, and uses this as an opportunity to level up others.	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 roadmap of their team or business area.  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.  Tackles problems before they can do harm, knowing which levers to pull to make change happen.  Highly engaged in the process of setting the vision for a team, leverages their expertise and the expertise of others to impact the roadmap of their team.  Holds the technical bar for their area, leans into problems they have identified and drives a well-thought out solution forward.

# Senior Staff Engineer (Level 70) / Principal Engineer (Level 80)

### **Scope:** Collective or Discipline

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

**Senior Staff** and **Principal** are senior leadership 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 teams, 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 **Senior Staff** 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 teams 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.	Understands importance of product-market fit and works closely with product leadership to ensure we're making the right decisions across one or more teams.  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.
Can understand the context of multiple different work streams, and offer effective technical advice and support for those workstreams while still maintaining excellent velocity.	Regularly challenges their team or area to have a greater sense of urgency for company priorities.  Remains calm during incidents or critical company emergencies. Can influence and lead others to bring structure and clarity rather than chaos.  Able to proactively propose strategy for engineering within their Collective/Discipline, and knows how to effectively get buy in

and move this forward.
Able to effectively delegate to load balance their work where necessary, whilst also using this as an opportunity to bring up others.

# Distinguished Engineer (Level 90)

### Scope: 🏦 Company

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

As a "Distinguished Engineer" you 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 this level 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 Principal engineer, and one who is doing a very specific job (e.g. VP Architecture). Progression to Principal 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.  Confident with huge scale complexity, and someone we would send to our very gnarliest problems.	Supports hiring our most senior engineering people.  Cares about, and is involved in the wider business strategy; 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.  Defines and sets our principles and patterns, including extending these to cover previously unknown spaces.  Should be speaking or writing for internal and external consumption.	Able to provide actionable direction to teams of multiple stakeholders even in the most challenging of situations.  Effective at creating and getting buy in for a multi-year technology strategy across the company, from Board level to individual engineers.  Able to make and communicate difficult decisions when necessary.

Recognised beyond Monzo as a leading expert in their field, and contribute back to it (or if not for some reason, their profile is one that is capable of this in the right situation)

Leads by example to proactively foster an inclusive, diverse, and 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 product.