EUROPEAN CHIPS DIVERSITY ALLIANCE

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The Next Talent Crisis: Retention Risk in the European Semiconductor Sector

EudaOrg

Contents

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The European Chips Diversity Alliance has received funding from the European Education and Culture Executive Agency (EACEA) under project No 101140006.

Executive Summary

This report asks what allows technical talent to stay and grow in the European semiconductor sector.

It draws on a survey of 220 workers in technical roles across 15 European countries, and on interviews with HR professionals in Germany and France, and national sector bodies in Spain and Ireland. This is the largest study to date on retention of technical talent in the European semiconductor sector. 26% of the technical workers in this study plan to leave their employer within the next three years. For an industry expecting to lose three in ten of its workers to retirement by 2030, avoidable departures on this scale are a cost the sector cannot absorb.[1]

Most departures are years away, not months

- ☑ 4% of all workers surveyed intend to leave within a year. The rest of the 26% planning to leave have given themselves up to three years, which leaves employers time to act.
- ☑ A third of Gen Z and Millennial workers plan to leave their employer, roughly double the rate of Gen X. Asked what progression means to them, two in three Gen Z workers chose growing their technical skills, over pay or titles.
- ☑ Of the workers planning to leave their employer, 46% have not decided whether their next role will be inside or outside the semiconductor sector. As 13% of the total surveyed workers, there is an opportunity to act and retain these people either inside the organisation or the sector.

Workers ask for pay. Fairness decides who leaves

- ☑ 31% of workers name better pay as the change that would most improve their working lives, ahead of management quality at 15% and workload at 11%. Pay rates higher for those already planning to leave, even though it is not how younger workers define progression.
- ☑ 29% of workers feel progression where they work is decided unfairly. Workers who see progression as unfairly handled are around 2.3 times as likely to be planning to leave.
- ☑ This study weighed the demands of the work against the support organisations provide in return. The work is cognitively demanding, 87% of workers report sustained mental effort often or very often and demands sit at similar levels for those who stay and those who plan to leave. What divides the two groups is the support they receive.

What stayers have in common

- ☑ Eight in ten technical workers do not have a clear picture of how progression works for them. Leavers are three times more likely than stayers to see no way forward in their organisation at all.
- ☑ Asked what would help them stay and grow, the single most common request was to make progression and its rewards transparent.
- ☑ Workers who feel well supported day to day are far less likely to be planning to leave, regardless of workload. Reducing pressure without strengthening support is unlikely to change who stays.
- ☑ Among those planning to stay, 91% feel they belong and 96% feel positive about their own future in the sector. Keeping people means protecting these strengths, not only fixing current challenges.

[1] European Chips Skills Academy. (2025). ECSA Skills Strategy Report 2025. DECISION Études & Conseil. https://chipsacademy.eu/news/ecsa-skills-strategy-2025/

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The conditions behind these departures sit largely within employers' reach. This report sets out nine recommendations built on that evidence: six for organisations, from publishing progression frameworks to protecting fairness through the mid-career years, and three for policymakers. 81% of workers would still recommend the sector as a career, including a majority of those planning to leave. **These are not workers who have been lost. They are workers who have not yet been given a reason to stay**

From finding to action

For organisations

The evidence	The response
Workers who feel progression is decided unfairly are 2.3 times as likely to be planning to leave.	Publish the progression framework: the levels, what moving between them requires, who decides, and the rewards attached.
Perceived fairness of progression is at its lowest among staff with 8 to 15 years tenure, the same years practitioners say they lose most technical staff.	Review pay and progression decisions for mid-career staff, with care that market corrections for new entrants do not leave longer-serving staff behind.
The day-to-day supports that separate stayers from leavers are useful feedback, being heard, and a say in decisions.	Equip managers with the skills that keep people: giving useful feedback, acting on ideas employees raise, and sharing decisions.
Younger workers plan to leave at double the rate of Gen X, and what they want is technical growth.	Build technical development pathways that let people advance when they meet the criteria, rather than after a set time in grade.

For policymakers and sector bodies

The evidence	The response
From June 2026, the EU Pay Transparency Directive requires employers to publish the objective criteria behind pay and pay progression.	Extend that work into published best practice career progression frameworks, the criteria and decision-making this report links most strongly to staying.

Nine recommendations in full are set out in **Chapter 8.**

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Chapter 1
Introduction

Retaining technical talent has become one of the most pressing workforce challenges facing the European semiconductor sector.

The EU's Digital Decade programme set the target of doubling Europe's share of global chip production to 20% by 2030, and the 2023 European Chips Act was built to pursue it, naming the skills shortage among the problems it exists to solve.[2] In June 2026 the Commission proposed a Chips Act 2.0 to strengthen the industry further and reduce strategic dependencies.[3] Both depend on skilled people. The industry is expected to need more than one million additional skilled workers worldwide by 2030.[4] In Europe, the pressure is sharpest at the exits: three in ten of the sector's workers, around 114,000 people, are expected to retire by 2030, while the flow of graduates into the sector grows by only 1% a year.[5] New entrants are absorbed by new demand. They do not replace the people who leave.

The graduate pipeline cannot expand fast enough to close the gap. STEM graduate numbers across the EU rose 14.4% between 2015 and 2022 and still fall short of demand, particularly in engineering and ICT.[6] The European Labour Authority describes shortages across European labour markets as increasingly structural, driven by demographic change and skills mismatch.[7] The same challenges hold outside Europe. Analysis published in 2025 projects that the American semiconductor industry's talent gap will roughly double by 2035, because retirees are leaving faster than new workers can be recruited.[8]

The shortfall is compounded by movement. Talent is lost from Europe: it is estimated that one in ten European semiconductor graduates take their careers outside the EU, and keeping them is estimated to be worth a fifth of the sector's talent gap.[9] Talent is lost within Europe: the European Commission has identified 46 regions, home to 16% of the EU's population, caught in what it calls a talent development trap, their working-age populations declining and their graduates moving away, with a further 36 regions at risk.[10] The pattern is general: skilled people move toward pay and opportunity, within countries and between them. Talent is lost, most routinely of all, one resignation at a time, as people move to a competitor, another industry, or another country. These individual departures are where employers hold the most influence. It is also where failure costs most: turnover is most expensive where skills are specific to the business, as they are in semiconductors, and investment in training only pays back if people stay.[11]

Surveyed in 2023, 53% of semiconductor and advanced electronics employees said they were at least somewhat likely to leave their job within three to six months, and the reason named most often was the absence of career development.[12] The wider workforce shows the same readiness. In 2024, 28% of workers globally expected to change employer within a year, rising to 39% in technology. The same survey also asked why. Two in three likely movers said the chance to learn new skills mattered to their decision, yet fewer than half of workers believed their employer provided adequate opportunities to learn.[13] European conditions add to the risk. In 2025, only 12% of European employees felt engaged at work, the lowest of any world region and a figure that has barely moved since 2011. At the same time, a majority of European workers said it was a good time to find a job.[14] Weak attachment in an open labour market is the combination that increases departures.

A limited amount of this evidence is specific to the European semiconductor workforce. The first European Chips Diversity Alliance report found that organisations in the sector can attract diverse talent but struggle to build sustainable pathways for it.[15] The sector also has something worth protecting: most of its technical workers value the work and speak well of the industry, as this report will show. Drawing on a survey of 220 technical workers across 15 European countries and interviews with practitioners in four, the largest study to date on retention of technical talent in the European semiconductor sector, it asks what an organisation looks like where technical talent want to stay and grow. A workforce that stays is also a condition for Europe's technological sovereignty and long-term competitiveness in the sector.

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3 European Commission. (2026). Proposal for the Chips Act 2.0. https://digital-strategy.ec.europa.eu/en/library/proposal-chips-act-20
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14 Gallup. (2026). State of the global workplace: 2026 report. https://www.gallup.com/workplace/349484/state-of-the-global-workplace.aspx
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Chapter 2

Methodology

The survey ran from March to May 2026, asking technical workers in the sector about six areas of working life:

- ☑ what drew them to the sector and how it matched their expectations
- ☑ what they value most at work and how well their role delivers
- ☑ their future in the sector
- ☑ pressures of their work and the support their organisation provides
- ☑ fairness and clarity of career progression
- ☑ what would most improve their experience

Generation	n	%
Generation X	112	51%
Millennials	62	28%
Generation Z	27	12%
Boomer or earlier	14	6%
Prefer not to say	5	2%

Gender	n	%
Men	173	79%
Women	33	15%
Prefer not to say	14	6%

Tenure	n	%
16 years or more	115	53%
8 to 15 years	36	16%
Under 2 years	25	12%
2 to 4 years	22	10%
5 to 7 years	20	9%

The survey was distributed through social media, including LinkedIn, and through partner, industry body networks and professional associations. Eligibility rested on two conditions: each respondent confirmed they worked in a technical role in the semiconductor sector in Europe and gave their consent to participate. In total, 220 technical workers took part. The sample skews experienced and male. The survey was complemented by four interviews: HR professionals in Germany and France, and national sector bodies in Spain and Ireland. The interviews had two aims. The first was to understand the trends observed in the loss of technical talent. The second was to understand what organisations were putting in place to slow those exits. The interview findings are set out in Chapter 7.

Analytical approach

The analysis compared technical workers who intend to stay with those who intend to leave their organisation within three years, to identify the conditions that separate the two groups. Key decisions shaped how this was done, and the main ones are set out here.

1. **Workers at or near retirement were excluded**, so that the findings reflect avoidable turnover an employer can influence rather than departures that would happen regardless.
2. **Comparisons between countries were limited to Ireland and Germany**, the only two with enough respondents to support reliable analysis. Other countries are described but not compared.
3. **The 8-to-15-year experience band was kept deliberately broad**, since dividing it more finely would have left groups too small to analyse with confidence.
4. **Findings for smaller groups within the sample**, such as individual generations, show the direction of a difference rather than its exact size.
5. **Open-text responses in French, Italian and German were translated directly into English**, with no added interpretation. Any spelling errors in responses were corrected.

A full account of the analytical decisions, variable definitions and sample sizes is published in the technical annex at www.diversityinchips.eu.

Two models informed how parts of the survey were designed

Job Demands-Resources model

Weighs the demands of a job, such as workload and time pressure, against the resources that help people manage them, such as support and useful feedback. It shaped the questions on working conditions.

Self-Determination Theory

Sets out three needs behind motivation at work: feeling capable and able to grow, having some control over how you work, and feeling connected to others. It shaped the questions on what workers value and find rewarding.

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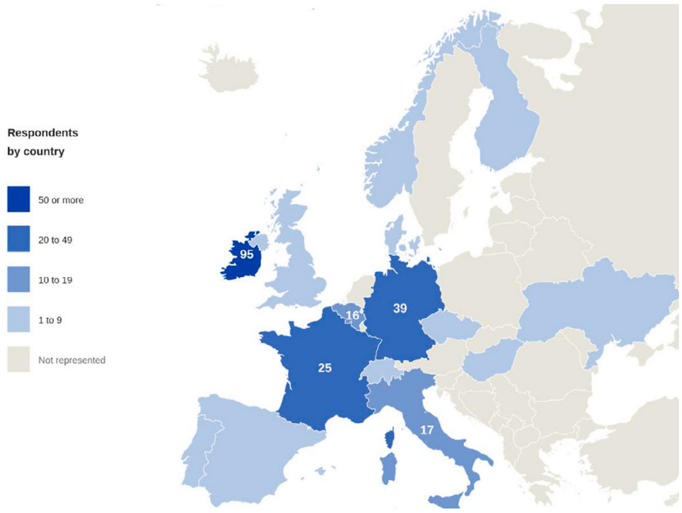
Chapter 3
Profile and Sector Entry

Who works in the sector: an experienced and concentrated workforce sample

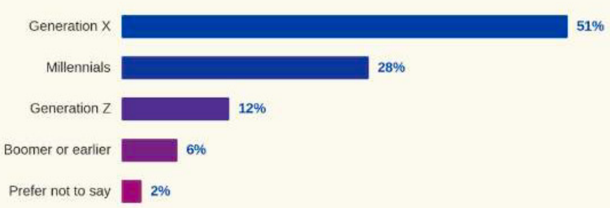
This sample is an experienced workforce, and a geographically concentrated one. Ireland and Germany represent just over six in ten of the workers surveyed, with Ireland alone accounting for 43%. France, Italy and Belgium add smaller but meaningful numbers, and the rest of the sample is drawn thinly across another ten countries.



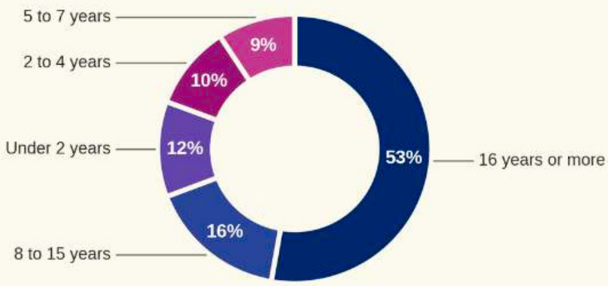
The job roles are grouped using a classification developed by the European Chips Skills Academy and published in its Skills Strategy 2024[16]. It organises the wide range of sector job titles into five occupational groups. Respondents selected their role from a list of 19 titles, with an open option for those not covered, and each response was mapped to one of these occupational groups. Two of five groups are combined in this report, because of small sample sizes, giving four groups in total.

Hardware engineers are the largest group, at just over half the sample. The classification defines them as those who research, develop and improve semiconductor devices and fabrication processes. A further quarter of respondents work in management, project or business support roles, and 14% are technicians. The remaining group combines software and data specialists, which the classification lists separately, because neither was large enough to analyse reliably on its own. Together they account for 11%. **The full mapping of survey roles to groups is given in the technical annex at www.diversityinchips.eu**

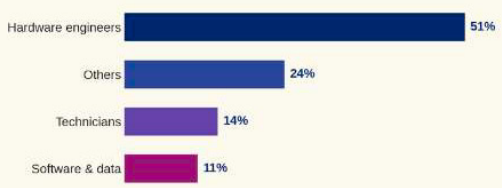
Generation



Tenure



Role group



Gender

[16] European Chips Skills Academy. (2024). ECSA Skills Strategy Report 2024. DECISION Études & Conseil. https://chipsacademy.eu/news/ecsa-skills-strategy-2024/

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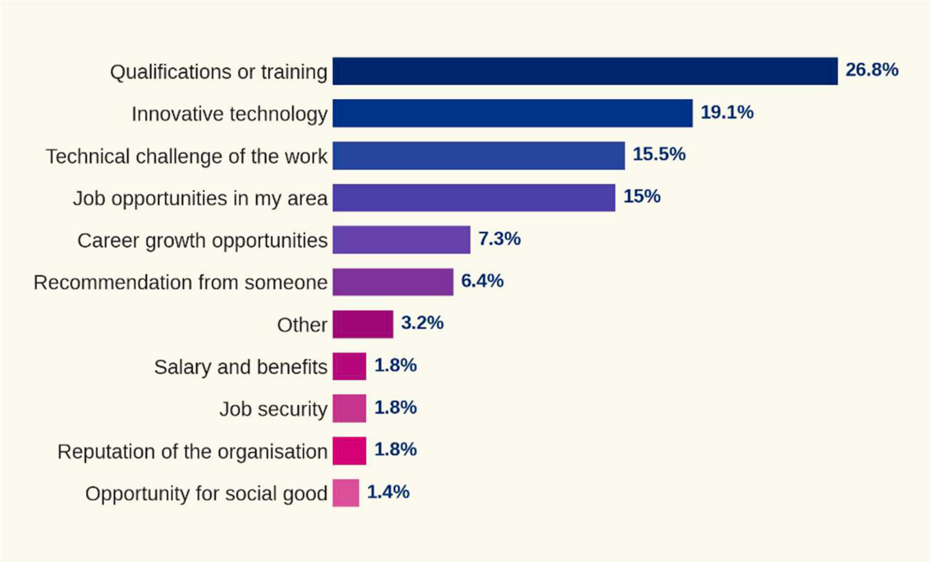
The work is the pull, but the routes into the sector are widening

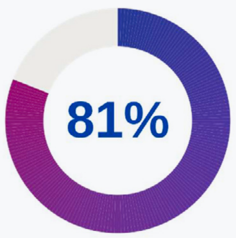


People are drawn to the semiconductor sector by the work itself. More than a third joined for what the work involves, split between the pull of innovative technology (19%) and the technical challenge of the job (16%), and a further 27% followed their qualifications into the field. Pay was rarely the deciding factor at entry.

Salary, job security and reputation together accounted for around 5% of reasons for joining.

For more than a quarter of workers, the path in ran directly through their education, which marks the qualifications pipeline as one of the sector's main recruitment channels. Entry route did not differ significantly by gender, generation or role. By tenure, it did. Newer entrants gave a wider range of reasons for joining than longer-serving workers, for whom qualifications were the most common single route in, a sign that motivations for joining the sector are potentially evolving.

Most workers find what they expected, and would recommend the sector to others



of workers would recommend the semiconductor sector as a career

For most people, the sector delivered on what they expected. 62% said it met or exceeded their expectations, and a further 29% found it about what they had anticipated. Only 9% felt it fell short. Those who did named consistent pain points: pay below what their qualifications seemed to warrant, progression that was slow or loosely mapped, and in some cases dated tools or heavy process.

Most workers would also recommend the sector to others, and this holds across the board. 81% said they would recommend semiconductors as a career, with no meaningful difference by gender, generation, role or tenure. Its weight comes from the experience behind it: people who know the sector from the inside and would still recommend it.

What brought someone into the sector does not predict whether they leave it

Whatever first brought someone to the sector, it does not indicate whether they are now planning to leave.

Those who joined for the technology are as likely to be planning to leave as those who joined for the qualifications, the salary or the location. Entry and exit are unrelated. If the reason people join cannot tell us who then leaves, the answer to retention is not found at the point of hiring. It lies in what happens after people arrive. The chapters that follow trace exactly that: what separates the people who stay from those preparing to leave.

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Chapter 4
The Scale of the Retention Risk

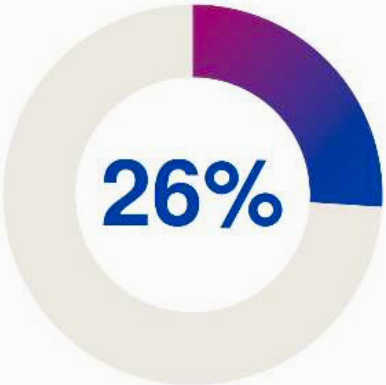
Over a quarter of technical workers plan to leave, but employers still have time to act

Retention risk in this workforce is not distant or hypothetical. 26% of the technical workers in this study plan to leave their employer within the next three years. The timeline is not evenly spread: 4% of all workers surveyed intend to leave within a year.

Workers considering leaving most often pointed to limited career progression, a better opportunity elsewhere in tech, salary, and the quality of management. They could name more than one driver, and most did: these pressures combined build towards a decision to leave.

Not everyone who intends to leave will, and the figure describes intent to leave rather than confirmed attrition. That is what makes it actionable.

These workers are still in post, most have given themselves years rather than months, and the reasons they give for considering leaving are conditions an employer can address.



of technical workers plan to leave their employer within three years

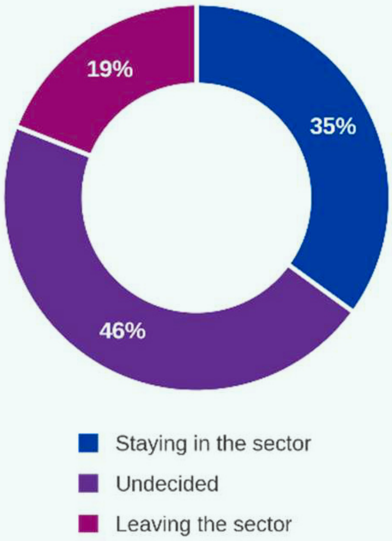
Leaving an employer is not necessarily leaving the sector, and many are undecided

Not everyone who plans to leave their organisation plans to leave the sector. Of those planning to go, 35% intend to stay in semiconductors, working for a different employer, and 46% have not decided. Only 19% have ruled out the sector for future employment.

Set against the sample, that undecided group is around 12% of all workers surveyed: people planning to leave their employer whose next move could still keep them in the sector or take them out of it. For a sector that cannot afford to lose experienced technical talent, they are the group most worth competing for.

Leaving does not appear to switch off goodwill either. Among workers planning to leave, a majority would still recommend semiconductors as a career, even though they recommend it less often than those planning to stay.

What has changed is their willingness to stay where they are, and that distinction gives employers and the sector something to work with: these are not workers who have been lost, but workers who have not yet been given a reason to stay.



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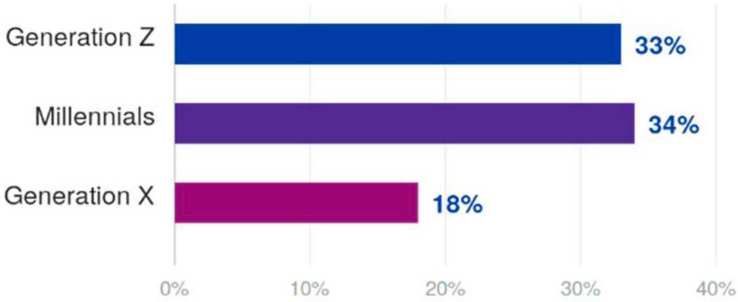
Younger workers plan to leave at double the rate, looking for growth and pay, not titles



Understanding retention risk means knowing whether it concentrates in certain groups of workers. To establish this, leaving intent was tested against country, tenure, gender, role group and generation. Only one showed a reliable difference: generation. A third of Gen Z and Millennial workers plan to leave their employer, roughly double the rate among Gen X.

Younger workers are not leaving because they are treated worse. Gen Z report the strongest support and the lightest workload of any generation, both statistically significant differences, and they rate their opportunities to grow and their future in the sector as positively as their older colleagues. Reported support declines with age and workload climbs with it, so Millennials and Gen X experience their conditions similarly, under more pressure with less support.

Yet the pattern of leaving does not follow the conditions: Gen Z, with the best reported conditions, plan to leave at almost the same rate as Millennials, while Gen X, under the most pressure, are the most likely to stay. Whether the conditions are the best reported, as for Gen Z, or the most demanding, as for Gen X, neither pattern decides who goes.

The reasons workers give point to what does decide who goes. Younger workers considering leaving name pay, a better opportunity elsewhere and the pace of progression, and rarely mention management, culture, recognition or work-life balance. Pay features most strongly for Millennials. Gen X responses are spread across a wider range, with personal and life circumstances featuring in a way they do not for younger groups. The clearest difference lies in what progression means. Asked to define it, two in three Gen Z workers chose growing their technical skills, against roughly a half of Millennials and just over a third of Gen X. Interviewees described a generation impatient for advancement, and the survey responses refine that picture. The ambition younger workers report is technical depth rather than seniority, they are no more focused on reaching leadership than any other group, and they leave sooner because they believe the growth and pay they want will arrive faster elsewhere.

DEEP DIVE

Retention levers differ by career stage

In the first ECDA report, executives described adapting communication, feedback and work-life balance to manage younger colleagues. In this study, Gen Z already rate those conditions most favourably of any generation, and they are not what decides whether they stay. They remain worth protecting.

Gen Z and Millennials

Retention effort belongs on faster progression, competitive pay and room to deepen technical skills, the reasons both groups give for looking elsewhere. Pay weighs heaviest for Millennials, who plan to leave at the highest rate of any generation.

Gen X

No single lever stands out. Their reported gaps in support and workload deserve attention in their own right, and they remain the generation most likely to stay.

Note: workers of the Baby Boomer generation were too few in this study to compare reliably.

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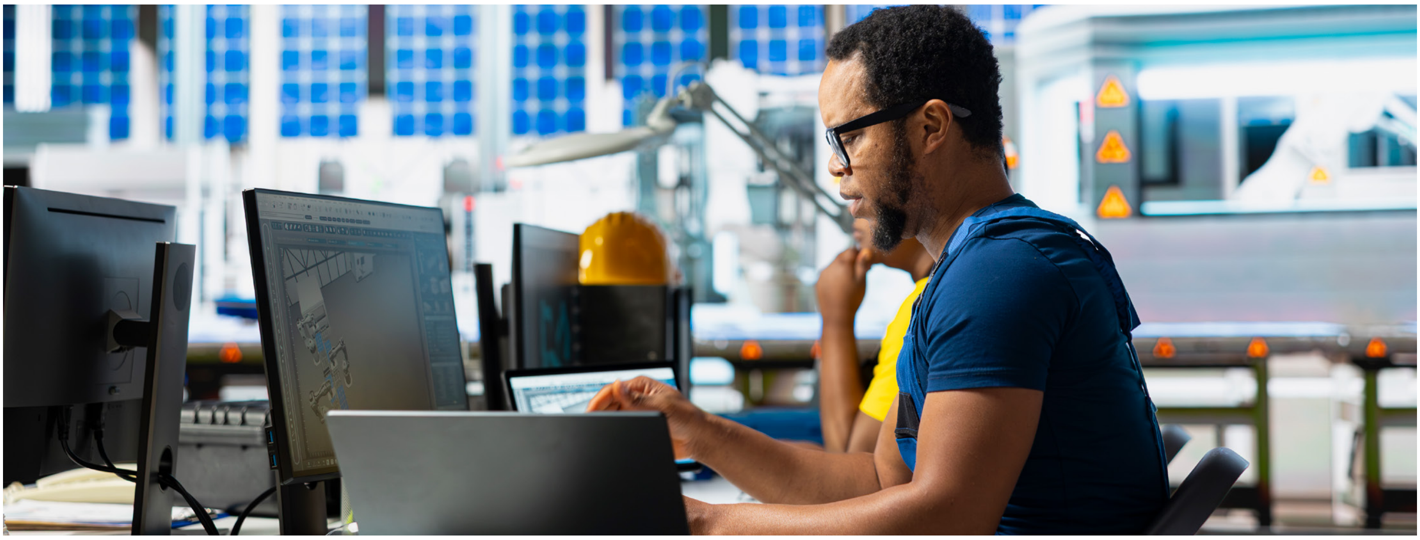
Chapter 5

What Drives Leaving



Employees ask for better pay but leave over unfair progression

When workers are asked what would most improve their working lives, one answer comes up more than any other. Better pay. It was the most common selected answer, named by 31% of workers, ahead of management quality at 15% and workload at 11%. Pay matters even more to those already thinking about leaving. The workers who plan to go were more likely than those who plan to stay to describe progression in terms of money, and to select pay when asked what would keep them in their organisation. Pay is a serious concern, and it is felt most sharply by the people an employer is closest to losing.

Yet pay is not where stayers and leavers most differ. The sharpest dividing line between them is something else: whether they feel that progression is decided fairly in their organisation. 29% of the workers in this study feel progression where they work is decided unfairly. Workers who see progression as unfairly handled are around 2.3 times as likely to be planning to leave within the next three years.

Fairness does not stand alone. Workers who feel progression is unfair also tend to feel less supported, less certain about their path, and less well rewarded. These experiences tend to come together, so when each is looked at by itself, all of them appear to drive leaving. Looked at together, fairness is the one that stands out. The others matter largely because they tend to rise and fall with whether progression feels fair, and where it feels fair, support, path clarity and reward follow.

For employers, this is the distinction that counts. Pay is the most visible thing workers ask for, and acting on it is worthwhile. But based on this data, an organisation that moves on pay while leaving the fairness of its progression decisions untouched will have answered what workers asked for, without reaching what most divides those who stay from those who leave.

What workers say they want changed

Top seven of eleven responses shown

What separates stayers from leavers

2.3x

more likely to be planning to leave where progression feels unfair

Fairness is the factor that stands out when all are weighed together.

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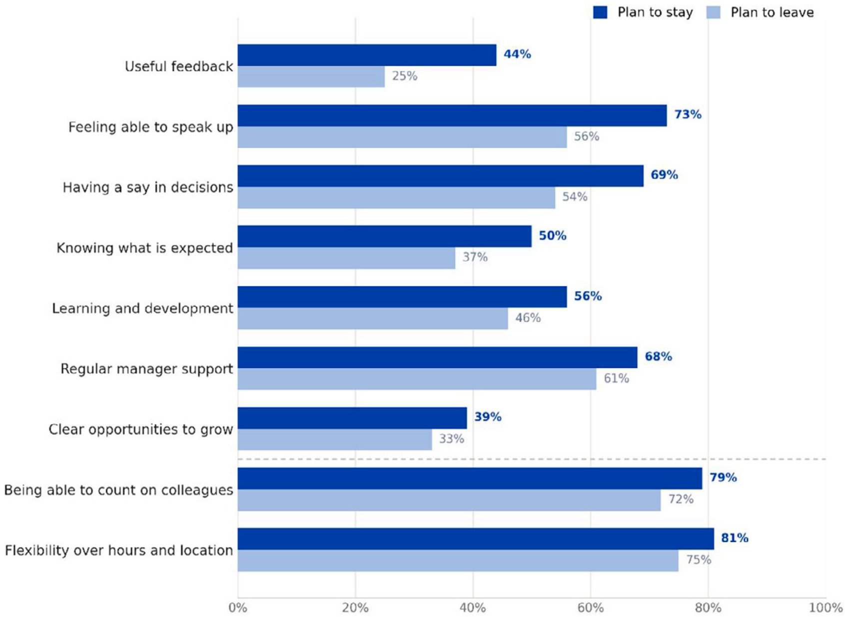
Stayers and leavers carry the same workload. What differs is the support they receive

To understand what makes people stay, this study used an established framework, the Job Demands-Resources model, which sets the demands a job place on people against the support it provides in return. It would be reasonable to expect that those most likely to leave are those facing the heaviest demands. The data points elsewhere.

The work itself is cognitively demanding, 87% of workers reported sustained mental effort and concentration often or very often in an average week. Around half also pointed to high speed or time pressure (55%) and more work than the time allowed (51%). Other demands, from unpredictable changes to administrative obstacles, were felt less widely. These demands were at similar levels for those who stay and those who plan to leave. Pressure is a genuine feature of the work, but it is not what divides the two groups, support is.



Workers who feel well supported day to day are far less likely to be planning to leave, regardless of their workload. Most do: 78% said their organisation supports them well given the pressures they face. The distinction matters for how an employer reads a retention problem. A team under visible strain is easy to identify, and the natural response is to reduce the pressure on the team.

That response, on its own, will not retain people. This is not to say workload does not matter. A sector known for its intensity cannot afford to disregard it. The point is narrower: reducing workload without strengthening support is unlikely to change who stays, because the pressure is much the same for those who leave as for those who remain. The support that separates the two groups is specific, and the survey shows exactly where the gaps lie.

Across all nine areas of support, those who plan to stay reported more support than those planning to leave. The difference is widest on useful feedback, reported by 44% of stayers against 25% of leavers, followed by the freedom to speak up and a say in decisions that affect one's work. What these have in common is whether a worker is heard and has clarity about their position. The two that did not separate the groups, the ability to rely on colleagues and flexibility over hours and location, were rated highly by almost everyone, which makes them a strength to hold onto rather than a gap to close.

This reflects what the European Chips Diversity Alliance found in its first report, where inclusion was felt less through formal policy than through the quality of everyday interactions at work. Retention works the same way. What keeps technical workers is not a single benefit or programme, but the daily sense of being supported, heard, and clear about their position. The picture that emerges is of two groups facing the same pressures, separated by the degree they feel supported through them.

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Reward shows the widest satisfaction gap, but belonging predicts the exit

Overall satisfaction in the sector is high, but it is not evenly spread. Across aspects of satisfaction with working life, those who plan to stay and those who plan to leave report similar satisfaction in some areas and differ in others. The aspects where they differ are important indicators for retention.

Aspect of work	Plan to stay	Plan to leave	Gap
Reward	83%	63%	+20
Work-life balance	87%	68%	+19
Belonging	91%	75%	+16
Purpose	85%	70%	+15
Recognition	87%	74%	+13
Technical challenge	92%	79%	+13
Visible impact of my work	94%	81%	+13
Senior leaders value me	74%	63%	+11
Manager support	82%	81%	+1

Share who say each aspect meets or exceeds their needs. Gap is the difference in percentage points.

Satisfaction with the technical challenge of the work is high across the sector, at 92% among those staying and 79% among those planning to leave. The sense that the sector matters, that senior leaders value their contribution, and that managers offer support are shared at similar levels by both groups. The differences here are modest. The clearer differences appear in how people feel recognised, rewarded and connected at work. Those planning to leave are consistently less satisfied than those who stay. The widest gap is in reward, where 83% of stayers are satisfied against 63% of leavers, followed by work-life balance, belonging, purpose and recognition.

Belonging deserves closer attention. Its gap is not the widest: 91% of stayers feel they belong, against 75% of leavers. The figures in the table are mean averages across the group, and on that measure reward and work-life balance show the largest gaps. Yet an average can hide as much as it reveals. When the analysis looked at individual responses rather than group averages, belonging emerged as the satisfaction aspect that most reliably predicted a leaver. Improving compensation and work-life balance might gain an employer time, but cultivating a sense of belonging is what gains loyalty.

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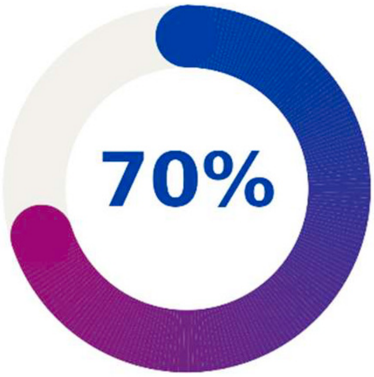
Declining optimism is a symptom of deeper retention issues

The previous sections examined how people experience their organisation currently. But how do they feel about its future? Here too, stayers and leavers diverge: 74% of those staying expect their organisation to improve, against 56% of those planning to leave. Most leavers have not written their organisation off. Far fewer of them, though, expect it to get better. The difference is smaller on the surface than for pay or belonging, but it proved a significant predictor of desire to leave.

Optimism works differently from the other findings in this chapter. It is not a condition an employer provides, but a result of the conditions already described. Where progression is unfair, support is thin or belonging is weak, optimism is what erodes. People rarely leave the moment something goes wrong, they leave once they stop expecting it to improve. That expectation is closely tied to whether a person can see a clear path forward, and those who lose it are so often the ones who plan to go.



of workers are optimistic that their organisation will improve

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Chapter 6

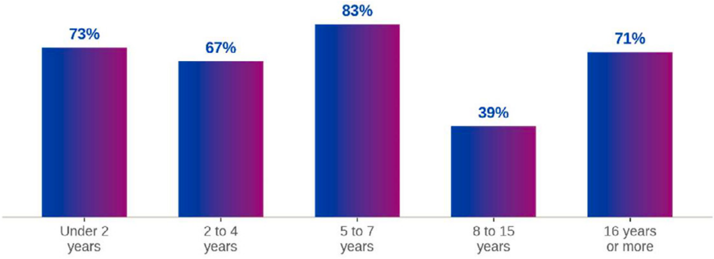
What Makes People Stay and Grow

Retention rests on a fair progression system, but trust dips among mid-tenure workers

Being overlooked for progression is an experience many workers in this study share. 44% believe they have been passed over at least once, and 14% believe it has happened more than once. Yet it does not impact people staying in their organisation. Workers who had been overlooked were no more likely to be planning to leave than those who had not. What matters for retention is not a single decision that went against someone, but whether progression feels fair as a system.

Progression feels least fair in the middle of a career

Share of workers in each experience band who feel progression is decided fairly or very fairly



Perceptions of that fairness differ by career stage. Workers who are 8 to 15 years in rate progression fairness lowest of any experience group, lower than new entrants and lower than the most senior. A HR professional interviewed for this study described the same mid-career years as a point where their organisation loses technical staff.

Survey text responses point to one way this unfairness arises: when organisations raise starting salaries to match the market, longer-serving staff whose pay is not adjusted at the same time watch new entrants close the pay gap they spent years earning.

This mid-career dip is about the organisation, not the sector. The workers who rate progression fairness lowest, those 8 to 15 years in, are no more likely than any other group to say the sector fell short of what they expected. Their frustration is with how progression is handled where they work. Nor does it last: workers past 15 years rate progression fairness high, which shows trust in progression can be kept over a full career. The middle years are where pay and progression decisions deserve the closest attention.

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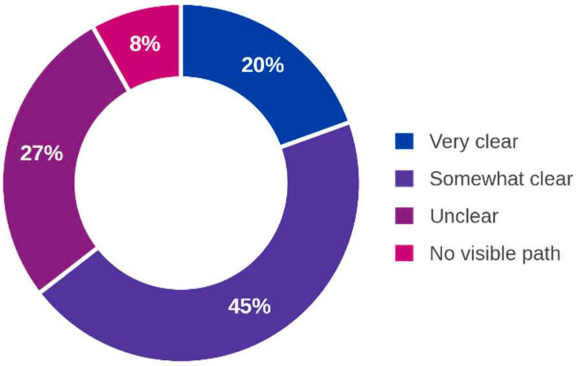
A clear career path is one of the strongest retention tools



Clarity about progression is scarce on both sides of the retention divide, but far scarcer among those planning to leave. A quarter of workers planning to stay know exactly what progression looks like for them. Among those planning to leave, one in twenty do. Leavers are three times more likely to see no way forward in their organisation at all. Clarity about the future also shapes belief in it. Workers who can see their path are significantly more likely to believe their organisation will improve, an expectation that clearly separates those who stay from those who go.

Across the workforce surveyed, eight in ten technical workers do not have a fully clear picture of their progression, ranging from those with only a general sense of it to the 8% who see no path at all. The fog is evenly spread: path clarity is no worse for younger workers than for older ones, which places the cause in how organisations run progression rather than in the expectations of any one generation.

For employers, this is one of the most workable findings in the study. In most organisations the information already exists: what the levels are, how movement between them happens, who decides. It is held informally, by managers and HR, rather than published where technical staff can see it. Workers ask for exactly this. Invited to say what would help them stay and grow, the request they made most often was to make progression and the rewards attached to it transparent. One respondent described wanting 'a personal webpage with lots of information: years worked, when to expect the next step, what compensation and bonuses to expect.' Making a career path visible is among the most direct investments this data connects to both staying and believing the organisation has a positive future.

The same workplaces that keep people are the ones people recommend to others

The stayer profile

82% feel well supported, given the pressures of their work

94% feel their work matters to the wider world

92% satisfied with the technical challenge

91% feel they belong

87% would recommend the sector

96% feel positive about their own future

Most workers in this study plan to stay, and their answers describe what a workplace that keeps technical talent provides. Support that matches the pressure of the work, work that feels consequential, technical challenge, and a team they feel part of. Nearly all feel positive about their own future in the sector.

Asked in their own words why they stay, the most consistent answer is not a benefit or a salary figure. It is attachment: to colleagues, to teams, to the company itself. The work comes next, described as interesting and international, and then the sense of moving forward. One stayer put the combination plainly: "I learn something new every day and feel that my managers see that I am growing." Growth and being seen to grow arrive together with development experienced as a form of recognition.

The same conditions that keep people also make them advocates. Workers who find genuine meaning in their work, feel the sector matters, can speak up, and feel recognised are most likely to recommend semiconductors as a career. Retention and reputation draw on the same source. An organisation that builds these everyday conditions is not only keeping its own people, it is recruiting through them.

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EUROPEAN CHIPS DIVERSITY ALLIANCE
Co-funded by the European Union

Keeping people means protecting what works, not only fixing what fails

Keeping people is as much about protecting what already works as repairing what does not. The analysis tested both sides. Workers planning to leave carry more unmet essentials: more of the areas they rate as essential to working life are falling below what they need. Workers planning to stay show the reverse: more of their essentials are being delivered in full. Retention weakens when gaps open, and it holds when strengths are maintained. An organisation that concentrates only on its areas for improvement can still lose people, by letting the conditions that keep its stayers deteriorate unnoticed.

The nine essentials

Workers rated nine areas of working life, first for how much each matters to them, then for how well their role delivers it.

Fair reward	Belonging	Meaning and purpose
Work-life balance	Work that matters	Recognition
Technical challenge	Manager support	Valued by senior leaders

Workers rated nine areas of working life, first for how much each matters to them, and then for how well their role delivers it: fair reward, belonging, meaning and purpose, work-life balance, work that matters beyond the organisation, recognition, technical challenge, manager support, and being valued by senior leaders.

These conditions are shared across the workforce. Apart from generation, where younger workers plan to leave more often, no group in this study differs from another: role makes no difference to staying, fairness, support or path clarity, and men and women stay and leave at near-identical rates, rating their conditions alike. One difference did surface in what progression itself means. Asked to define progression, women pointed to deepening mastery and being recognised for it more often than men, who named pay and promotion more readily. In a study where gender differences are otherwise absent, what growth means is the one place men and women show difference.

The picture this chapter builds are deliberately practical. The organisations people stay with make progression feel fair across a whole career, put the path forward where workers can see it, and deliver the everyday conditions their stayers already describe: support that matches the pressure, work that matters, a team to belong to. These conditions are built through sustained attention and investment, in managers as much as in systems, and the workers most likely to stay and grow are the ones who can already see that investment where they work.

COUNTRY COMPARISON

Ireland and Germany

↓ **Germany rates lower**

Workers in Germany rated their experience lower than workers in Ireland on all four measures: support, workload, progression fairness, and optimism.

= **But their leave rates are no different**

Within this study, the two countries showed no meaningful difference in how many workers were planning to leave, and the two groups are broadly similar by role, gender, generation and tenure. The gap in ratings may reflect real differences in working conditions, cultural differences in how people respond to surveys, or both; this study cannot separate them.

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Chapter 7

Voices from the Sector

Ireland: what would help most

Clear career progression.

The sector body's main recommendation

Nowhere left to grow

A common reason practitioners reported for technical staff leaving was that they had run out of room to develop. One HR professional in France explained why: deep technical training is hard to provide, and beyond vendor courses and conferences there is little of the ready-made training that exists for non-technical skills, so past a point, staff who want to go further leave to do it. A German HR team described the same ceiling at the top of the career ladder, where senior grade staff on a fixed salary said moving on was the only way to keep developing.

They also said that younger workers pushed hardest against the fixed career levels of junior, regular and senior, each with a set time before promotion, telling HR that a year or two in a grade felt too long when they already had the experience to move up. Asked what would help most, a representative from Ireland's semiconductor sector body gave a one-line answer: clear career progression. Appreciation at work surfaced as a separate concern. A German HR professional said it was a challenging area to address and implement. Primarily because appreciation is hard to define and act on. They described an employee who had recently told them they had many ideas and many things to say but could not get their manager to listen.

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Regional pressures and responses

Pay was named in every interview, always relative to something else: another industry, another country, or a scale that has stopped moving. The sharpest version came from a Spanish sector representative, who described Spain as good at building technical talent and struggling to keep it, with workers drawn abroad by salaries several times higher than those at home. A long decline in investment in vocational training has left technician roles in Spain hard to fill. Master's and PhD holders' step into them instead, and that gap between the work and their training is, the sector representative said, what often pushes them to leave. Where pay cannot rise, organisations turn to what the Spanish body called emotional salary: control over hours, shorter summer weeks, time that parents value as much as money.

The limits of using emotional salary as an incentive are plain:

- ☑ It reaches staff who can work off-site, not those tied to a lab or production floor.
- ☑ It cannot close the distance between a small-city or rural employer and a capital city.

The German team offered the mirror image: their production staff stay despite a strong outside market, held by job security and a flexible schedule. The reasons people leave, and the levers for keeping them, are not the same everywhere. They follow the country and the role.

Developing talent, losing it

Spain builds technical talent well, but struggles to keep it as workers are drawn abroad.

Sector body, Spain

CASE STUDY

The interview process that stopped early exits

The problem

A semiconductor manufacturer in France noticed something in its exit data it had not seen before. Engineers in their research and development department were leaving within two years of joining, and the reason they gave was the same each time: the job was not the job they had expected. Most were recent graduates or early-career researchers, hired out of academic research into industry. Looking back, the HR team could see how it had happened. A research and development role reads clearly enough on a job advert, but the advert does not convey what the work actually feels like day to day, and the interview had not closed that gap.

The response

The organisation changed how people joined. Candidates were offered an open conversation with a colleague already doing the role, held outside the formal interview, where they could ask anything they wanted about the work. For some, the organisation arranged a half-day alongside the team to see the job first-hand before any offer was made. The early exits stopped. The HR director called the fix obvious in hindsight: people had been accepting a role they could not yet picture, and the change simply let them see it before they decided.

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Chapter 8

Recommendations

26%

of the technical workers in this study plan to leave their employer within three years. The conditions linked to leaving sit largely within employers' reach, and that is what these recommendations address. **Two boundaries apply**: the findings measure intention rather than confirmed departures, and because role made no difference to any retention measure, the recommendations apply across the technical workforce rather than to specific job families.

Act now	**Actions that can begin immediately**, using structures and information already in place.
Build over time	**Actions that require new capability or investment**, with results that follow over a longer period.

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For organisations

Make progression fair, visible and worth staying for

Build over time

Publish the progression framework: the levels, what moving between them requires, who decides, and the rewards attached. In most organisations this information already exists but is held informally rather than shared. Workers who feel progression is decided unfairly are around 2.3 times as likely to be planning to leave, and eight in ten lack a fully clear picture of their progression path. Review pay at the same time: it is the most requested improvement, named by 31% of workers, but pay rises alone does not close the fairness gap that most divides stayers from leavers.

Protect fairness through the middle years

Act now

Review pay and progression decisions for staff eight to fifteen years in: perceived fairness of progression is at its lowest in this band, and practitioners describe the same mid-career years as the point where they lose most technical staff. Market corrections need care: raising starting salaries to match the market can leave longer-serving staff watching new entrants close a pay gap they spent years earning.

Equip managers with the skills that keep people

Build over time

Invest in management and team-leadership development in three practices: giving useful feedback, acting on ideas employees raise, and sharing decisions that affect their work. These everyday supports are what separate those who stay from those who plan to leave. Workload does not, since both groups carry similar pressure. Reducing workload without strengthening support is therefore unlikely to change who stays.

Grow technical depth at the pace people are ready for

Build over time

Build technical development pathways with recognised technical mastery milestones: let people move when they are ready against the criteria, not after a minimum time served. Younger workers plan to leave at roughly double the rate of Gen X, and what they want is technical growth: two in three Gen Z workers define progression as growing their technical skills. Women in this study defined progression as technical mastery even more often than men, so mastery-based advancement also supports the sector's diversity goals. Where growth is not available internally, people leave to find it.

Protect the strengths that keep people

Act now

Audit what is working as well as what is failing: workers with more of their essential needs met planned to stay, and those with more unmet planned to leave. An organisation focused only on its problems can lose people it was keeping, by letting its strengths erode. Belonging matters most: it is where stayers and leavers differ most sharply, so it repays direct investment. Colleague support and flexibility are strong across the workforce, but flexibility can be more challenging to reach lab and production staff, who need tailored solutions.

Learn from every leaver

Act now

Collect exit data systematically and put it in front of the people who can act on it: people who have resigned speak more openly than they do in post, so exit conversations reveal what an employer rarely hears otherwise. One organisation used what it learned to change how a role was described at hiring and early exits from that team stopped. Maintaining contact with strong leavers can support re-hiring.

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For policymakers and sector bodies

Extend pay transparency guidance to career progression

Build over time

National sector bodies, supported at European level, should publish best practice guidance on career progression frameworks for technical talent: the levels, the criteria for moving between them, and who decides. From June 2026, the EU Pay Transparency Directive requires employers to publish the objective criteria behind pay, pay levels and pay progression.[17] Guidance should be sector specific: in this study, technical workers described progression more as deepening expertise than titles or seniority, and clarity about progression was the strongest marker of who stays. Evidence from countries with longer-running transparency rules shows the gains come when published criteria are used in real pay and promotion decisions, rather than filed as compliance.[18]

Sustain EU-level technical skills programmes

Build over time

Treat technical skills programmes as retention infrastructure: EU skills funding is aimed mainly at bringing new people into the sector, but the same programmes help keep the people already in it. The workers most likely to leave are the youngest, and what they leave for is technical growth. Specialist technical training is not available off the shelf: employers can send staff to vendor courses and conferences, but little exists beyond that, a gap the European Chips Skills Academy was flagged in interview as filling. Programmes should therefore be designed and evaluated against retention as well as new entrants.

Build sector visibility in education

Build over time

Member States and sector bodies should sustain and expand visibility work in schools and universities: this includes careers guidance, site visits and industry-education partnerships. This report did not set out to address the talent pipeline, but one finding bears on it and is flagged here given the urgency of the sector's supply gap: qualifications and training are the largest single route into the sector, accounting for 27% of those surveyed.

[17] European Parliament and Council of the European Union. (2023). Directive (EU) 2023/970 to strengthen the application of the principle of equal pay for equal work or work of equal value between men and women through pay transparency and enforcement mechanisms. Official Journal of the European Union, L 132. https://eur-lex.europa.eu/eli/dir/2023/970/oj

[18] OECD. (2026). Pay Transparency in Progress: Valuing Jobs, Closing Gender Pay Gaps. Gender Equality at Work. OECD Publishing, Paris. https://doi.org/10.1787/121f268d-en

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