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ARTICLE

Beyond technology readiness: What is changing in the industrialisation ecosystem in 2026?

A selective look at the initiatives reshaping investment, markets and collaboration in the European bioeconomy



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We have become very good at describing the progression of technologies towards industrial maturity. Technology Readiness Levels (TRLs) remain a useful common language, and decades of European research and innovation funding have helped build an impressive pipeline of technologies, processes and potential products.

Yet the bioeconomy has never been concerned with technology alone.

The Bio-based Industries Joint Undertaking (BBI JU), succeeded by Circular Bio-based Europe (CBE JU), was already supporting industrial consortia via its Flagship Programme that brought together much of the value chain. The ReSolute flagship project, launched in 2020, is one example I know particularly well as I coordinated it as GM at Circa Group. Its partners included industrial companies developing applications, a distributor, regulatory specialists, researchers and market-development expertise alongside the start-up developing the first-of-its-kind (FOAK) technology which was Circa.

This is sophisticated thinking. It recognises that building a plant and establishing a market required more than advancing the underlying chemistry.

So what is different in 2026?

We are seeing an attempt to move beyond assembling the right participants towards changing the commercial commitments, financing arrangements and market conditions under which they operate. The distinction matters. A company funded to investigate an application is not necessarily committing to purchase the resulting material. A financial institution participating in an investment forum is not yet providing project finance.

The following is a selection of initiatives that illustrate this changing emphasis, including some established approaches that offer useful lessons. It is not intended to be a comprehensive survey.

Demand-pull: from customer involvement to purchasing commitments

One of the most significant developments is the **Bio-based Europe Alliance**, launched by the European Commission in October 2026.

The Alliance aims to mobilise €10 billion in corporate purchase agreements for bio-based materials and products by 2030. More than 100 organisations had joined at launch, bringing together buyers, suppliers, producers and public authorities.

The ambition is to make future demand more visible and predictable, giving producers and investors greater confidence to commit capital to new industrial capacity.

This is a potentially important progression from involving prospective customers in research and application development towards establishing demand that can influence an investment decision.

Although, we should be precise about its current status. The Alliance is voluntary, and the €10 billion is a target, not a portfolio of completed, binding offtake contracts. Its significance will ultimately depend on what members are prepared to purchase, under what conditions, and when.

A useful comparison comes from the UK, where Innovate UK and its partners launched an **Advance Market Commitment for next-generation low-carbon concrete** in December 2025.

It brings prospective buyers together around defined product requirements and quantified demand. The initial commitments are explicitly non-binding, becoming contractual only when incorporated into individual projects.

Concrete is not a bio-based chemical, but the mechanism is relevant. Aggregated prospective demand, accompanied by sufficiently clear purchasing requirements, could provide a stronger signal for investors than a collection of expressions of interest.

> **Both initiatives are testing an important proposition: can we improve the financing prospects of industrial innovation by organising the market before all the production capacity exists?**

Bankability: bringing a different set of people into the room

The **Bioeconomy Investment Deployment Group**, established in June 2026 by the European Commission, CBE JU and the Bio-based Industries Consortium, addresses another part of the challenge.

Its inaugural meeting brought together around 30 investment organisations, including commercial banks, promotional banks, venture capital, private equity and institutional investors. Its work focuses on mobilising private capital, exploring risk-sharing and blended-finance approaches, and developing a stronger pipeline of investable bioeconomy projects.

At its second meeting in October, participants agreed a roadmap for addressing financing gaps.

The distinction between a technologically mature process and an investable industrial asset is particularly important for first-of-a-kind projects, whose capital requirements, risk profile and development timelines often sit awkwardly between conventional funding models.

> **Bringing financial institutions together is a sensible start. The next test is whether their collaboration creates financing structures, risk allocations and investment decisions that would not otherwise have been possible.**

France provides a useful established comparison. Its **France 2030 Première Usine** programme, launched in 2022, explicitly supports innovative businesses building their first industrial facilities. In March 2026, another 13 projects were selected for more than €80 million of public support.

The programme is not exclusively bio-based. Its value as an example lies in treating the first factory as a distinct industrial investment challenge, rather than simply the final stage of a technology-development programme.

Lead markets: changing the conditions under which products compete

A third development is the renewed attention to the rules and incentives that influence purchasing decisions.

The European Commission published its proposed **Industrial Accelerator Act** in March 2026, while continuing work on a second European Biotech Act covering industrial biotechnology and biomanufacturing.

In August, **Cefic's European Market Mobilisation Plan** set out proposals for strengthening demand for low-carbon and circular chemicals, including green public procurement, Contracts for Difference and measures addressing the cost gap between conventional and more sustainable production.

These developments should not be confused with implemented legislation. The Industrial Accelerator Act remains a proposal, Cefic's paper represents industry recommendations, and the industrial biotechnology measures are still being developed.

Nevertheless, they reflect a growing recognition that industrial deployment depends not only on whether a new product can be manufactured competitively, but also on the conditions under which customers choose between established and emerging alternatives.

The European Bioeconomy Alliance welcomed the attention to bio-based lead markets in the Industrial Accelerator Act, while arguing that the proposal should go further. That is an important reminder that recognising a market in policy is not the same as creating it.

Industrial ecosystems: from connections towards coordinated deployment

Innovation clusters and industrial networks have been doing valuable work for decades. Across Europe, they have connected research, industry, public authorities, investors and entrepreneurs, often making collaborations possible that individual organisations could not have assembled alone.

Austria's industrial biotechnology ecosystem provides a good illustration. The **Austrian Centre of Industrial Biotechnology (acib)** and its partners have long helped connect industrial and academic capabilities; the **European Summit of Industrial Biotechnology (esib)** is itself an established platform for bringing this community together.

The newer question is how such relationships translate into industrial deployment.

Germany's **Industrial Bioeconomy** programme supports not only process development and demonstration facilities but also regional innovation clusters intended to integrate bio-based technologies into existing industrial value chains.

Bioeconomy Austria, established in 2022, connects regional organisations and now has more than 400 partners across industry, research, agriculture, forestry and public institutions.

The Netherlands offers a particularly instructive demand-side example. Its **National Approach to Bio-based Building** seeks to develop the entire chain from fibre crops to construction materials and their adoption in buildings. Its 2030 ambitions include substantial increases in the use of bio-based materials in new housing and renovation.

A July 2026 monitoring report found encouraging progress in renovation, particularly bio-based insulation, but more limited adoption in new construction.

> **That is useful evidence because it measures the development of an actual market, rather than simply the number of projects or partnerships established.**

Precompetitive collaboration: making the next commercial decision together

The **Global Impact Coalition (GIC)** offers a different, industry-led model.

In its Automotive Plastics Circularity project, eight chemical and recycling companies collaborated on recovering plastics from end-of-life vehicles. Following the initial pilot, the project progressed in 2026 towards a second phase examining commercial viability, including collaboration with vehicle manufacturers.

The question has moved from whether the materials can technically be recovered towards whether the necessary collection, sorting, processing and purchasing arrangements can form a viable industrial system.

GIC's Sustainable Olefins initiative had already moved into a separate project structure in 2025 to explore investment and offtake arrangements for low-carbon chemicals.

These are not exclusively bioeconomy initiatives, but they demonstrate a potentially valuable form of industrial collaboration: organisations working jointly on the commercial arrangements and infrastructure that none could readily establish alone.

> **That is a different proposition from partners contributing to parallel work packages within a consortium. It raises the possibility of moving from cooperation in developing a technology towards shared responsibility for establishing its route to market.**

An earlier lesson worth keeping: commercial discovery before commitment

One established initiative deserves special mention.

Innovate UK's ICURe programme has encouraged researchers to investigate potential markets and test commercial assumptions since 2014. Its approach continues to evolve, including a 2026 programme with the Henry Royce Institute for advanced-materials researchers.

ICURe operates much earlier in the innovation journey than most of the initiatives discussed here. It does not solve the financing of industrial plants or guarantee customer adoption. However, its central principle is invaluable: commercial evidence should influence what we choose to develop, not merely be gathered to justify decisions already made.

What should we be looking for next?

The direction of travel is encouraging. The conversation increasingly encompasses the entire industrialisation system: capital, customers, infrastructure, regulation, business models and the willingness of different organisations to share risk.

We should also recognise the progress made by earlier programmes. The challenge is to build on the considerable experience already accumulated.

And we should distinguish carefully between activity and impact. An alliance can attract members without generating purchases. A financial working group can develop recommendations without mobilising capital. An industrial consortium can successfully fulfil its funded obligations without establishing a viable market.

> **For me, the most useful test is this: What can someone now do, decide or commit to that they could not do before?**

That might mean a customer accepting a purchasing obligation, an investor financing a project on workable terms, a group of industrial companies sharing the cost of infrastructure, or a producer gaining credible access to a market. Those are the changes that matter.

If 2026 represents a meaningful turning point, it will not be because we have developed a better vocabulary for industrialisation. It will be because we have begun to change the conditions under which promising technologies become viable industrial businesses.

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