# Accsys Technologies

## Building on strong foundations

AGM update and reinstating estimates

General industrials

**A well-established and profitable market presence generated from the Arnhem Accoya facility represents a springboard for Accsys to bring new facilities and revenues on stream. In reinstating estimates, we also provide a framework for investors to appraise expected completion of the nascent Hull Tricoya operation and a prospective new US facility. These are both material developments and provide Accsys with the opportunity to generate significantly higher earnings.**

| Year end | Revenue (€m) | EBITDA* (€m) | PBT* (€m) | EPS* (€) | P/E (x) | EV/EBITDA (x) |
|---|---|---|---|---|---|---|
| 03/20 | 90.9 | 5.9 | (2.2) | (0.01) | N/M | 48.8 |
| 03/21 | 99.8 | 9.3 | 1.1 | 0.01 | N/M | 30.7 |
| 03/22e | 106.1 | 10.7 | 0.2 | 0.00 | N/M | 33.7 |
| 03/23e | 149.3 | 28.0 | 12.3 | 0.04 | 36.5 | 12.7 |

Note: *EBITDA (pre IFRS 16 from FY21), PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

## Business development agenda in full swing

Despite some COVID-19 disruption, Accsys delivered strong revenue and profit uplifts from its Arnhem Accoya (solid wood) operations in FY21. While COVID also provided some drag on construction of the new Hull Tricoya (chipped wood) facility, Accsys was able to make strategic progress in evaluating the US market, including establishing a JV with Eastman Chemical Company. With Arnhem capacity expansion to come on stream before the year end and Hull to be operational by July 2022, there is a clear roadmap for a step-up in group profitability. In the near term, underlying net debt is set to rise from very low levels at the end of FY21 to fund investment in these areas, but we anticipate that the resulting cash flows will start to reverse this increase in FY23 based on current known projects.

## Estimates reinstated, seeking growth beyond Europe

We are reinstating estimates based on the FY21 results and the AGM update. Arnhem capacity will continue to service Tricoya demand until Hull becomes operational in July 2022. We have not incorporated production from a possible US Accoya facility within our estimate horizon, although a share of JV costs is included in our estimates. We project end-FY22 core net debt (excluding leases) of c €44m (c 4.1x our FY22 EBITDA estimate). We do not currently include any cash flows relating to establishing a prospective Tricoya operation in Malaysia.

## Valuation: Arnhem/Accoya sets a solid base

The Accsys share price is up c 80% on a 12-month view. It responded favourably to a €37m (gross) equity raise at the end of May and is currently c 10% below the 188p high at the beginning of July. Based on our reinstated estimates, FY23 EV/EBITDA is 12.7x currently and our outline DCF methodology suggests that a standalone Arnhem/Accoya approach generates a valuation in line with the current share price (before group central and R&D costs, Hull/Tricoya and US/Accoya cash flows are factored in).

**28 September 2021**

| | |
|---|---|
| **Price** | **164.5p** |
| **Market cap** | **£315m** |
| | €1.17/£ |
| Core net debt (€m) at end March 2021 excluding leases | 6.7 |
| Shares in issue | 192.4m |
| Free float | 99.3% |
| Code | AXS |
| Primary exchange | LSE |
| Secondary exchange | Euronext Amsterdam |

### Share price performance


| % | 1m | 3m | 12m |
|---|---|---|---|
| Abs | 6.3 | (5.7) | 78.2 |
| Rel (local) | 7.7 | (5.7) | 42.9 |
| 52-week high/low | | 188p | 86.1p |

### Business description

Accsys Technologies is a chemical technology company focused on the development and commercialisation of a range of transformational technologies based on the acetylation of solid wood and wood elements for use as high-performance, environmentally sustainable construction materials.

### Next event

| | |
|---|---|
| H122 period end | September 2021 |
| H122 results | November – date tbc |

### Analyst


Toby Thorrington +44 (0)20 3077 5721

industrials@edisongroup.com

Edison profile page


***Accsys Technologies is a research client of Edison Investment Research Limited***

# Investment overview

## Company description

Accsys Technologies applies proprietary acetylation[1] chemical technology to produce performance-enhanced solid wood and wood elements (branded Accoya and Tricoya respectively) for use as environmentally sustainable construction materials. It currently produces Accoya at its Arnhem facility and a new Tricoya facility at Hull is expected to come on stream in mid-2022. Accsys has an international sales, marketing and distribution network and is actively considering establishing Accoya production in the US and a second Tricoya facility in Malaysia.

## Financials

Accsys currently comprises an established, profitable and growing Europe-based Accoya operation and a nascent UK Tricoya business that is expected to generate its first revenues in FY23. At group level, we expect revenue to almost double from FY21 to FY24 with operating profit rising fourfold, driven primarily by new capacity coming on stream. The current year and FY23 will be characterised by investment to bring a fourth Arnhem reactor and the new Hull facility into operation. While net debt will look high relative to the level of profitability for this developing business model in FY22 (c 4x EBITDA), we expect the profit profile described to reduce this significantly by end FY24 (c 0.5x EBITDA). That said, we expect Accsys to continue to reinvest in business expansion and we do not expect the payment of dividends over our estimate horizon.

## Valuation

Conventional cash flow multiples for this maturing but still developing business model show EV/sales and EV/EBITDA multiples of 3.4x and 33.7x for the current year, falling to 1.8x and 8.1x respectively by FY24 as new capacity feeds into increased profitability. Applying DCF methodology to the Arnhem/Accoya operations only suggests that the current 164.5p share price is equivalent to a c 3% (price and cost) inflation scenario, for this facility, excluding group-related costs. Including group-related costs reduces the DCF to c 100p; this could mean that some value from Hull/Tricoya and/or US/Accoya is already built into the share price but also that leveraging group IP to generate additional scale through new revenue and profit streams can potentially generate significant incremental value for shareholders.

## Sensitivities

Accsys currently has a single production facility, so its operating and commercial performance is the key driver of group profitability at the moment. Adding capacity here and potentially adding a new Accoya facility in the US adds execution risk, although experience gathered to date suggests that the process should likely be a smooth one. The operating characteristics of a new Hull Tricoya facility will only be validated once it is commissioned next year. To date, Accsys has been capacity-constrained with strong demand seen for both Accoya and Tricoya products. Given expected capacity increases – equivalent in volume to the enlarged Arnhem facility – there is an increasing onus on new business and market development. Existing market presence and having trade partners as co-investors (eg at Hull) provides a firm platform for business expansion. Construction is generally considered to be a cyclical sector; Accsys's specialist materials have relatively low penetration currently so share gains could provide some insulation in industry downcycles.

[1] The acetylation of wood is a process in which sawn timber or chips react with acetic anhydride under controlled heat and pressure cycles to change naturally occurring free hydroxyl groups – which absorb and release water – into an acetyl group, producing acetic acid as a by-product.

## AGM update (17 September)

The five-month (to end August) trading update pointed to continued strong underlying demand for Accoya with a 22% revenue uplift versus the same period in FY20 (pre-COVID) to c €40m. It is important to note here that this is essentially from the same capital base. The three reactors at Arnhem have operated largely at capacity since H219 when the third reactor came on stream, although activity levels did step down for a short period in Q121 once the COVID pandemic had been declared. Based on the latest period comparison, Tricoya revenues - currently produced from chipped Accoya wood - are also growing (+10 % versus the first five months of H122, a two-year comparative increase was not provided) obviously with similar capacity constraints and against a tougher comparator.

In numbers, **Accoya sales volumes were c 24,700m$^3$ an uplift of 8% versus the same period in FY20.** In the current year, the annual planned maintenance stop will occur in the second half – partly to accommodate works relating to the fourth reactor coming on stream – so this helps the comparison a little, given that it was in H1 in the prior year. Nevertheless, having returned to running at capacity after initial COVID disruption in FY21, continuing to do so is a key point. It is also clear that average pricing over the two-year period has been firm – implicitly + c 13% – driven in both underlying terms and to some extent by mix effects (with faster growth in external, non-partner sales). There have been some upward input cost pressures latterly, although the underlying selling price uplifts and mix development should still feed into improving profitability we believe.

The group's stated **net cash position at the end of August** (IFRS16 basis) was c €8m versus c €12m net debt at the start of the financial year; netting out the c €35m net equity raise (largely to fund a prospective new US facility – see below), suggests a crude underlying cash outflow of c €15m in the period. We will wait for the H122 results later in the year to pick out the detail; the key driver here is the investment programme which is underway and the stages that those projects reach and the rate at which the associated funds are applied.

With regard to the three major projects underway, there was little change in the messaging but progress is being made in each case:

- **Arnhem** – the fourth Accoya reactor is on target to be commissioned by the end of Q422 (March).
- **Hull** – the new Tricoya plant is expected to be operating commercially by July 2022 (in line with the 23 August update). As previously stated, the final stages of the construction and commissioning programme are now being executed directly under the control of TVUK (the JV entity established to own and operate the facility).
- **US JV** – planning for a new greenfield two-reactor 40,000m$^3$ Accoya facility is moving forward with front-end engineering and design now complete and advanced discussions regarding operational aspects between the JV partners and third-party financing are underway. Although a definitive decision to proceed is yet to be taken, a potentially complete construction date of mid-2023 is being reiterated.

From the company update and the above commentary, it appears to us that Accsys is on track to deliver its stated expansion plans while continuing to make commercial progress from its existing, established (and currently capacity constrained) Arnhem facility.

## FY22: to be a landmark year

Following COVID-19-affected FY21, FY22 will be a year of significant investment and corporate development for Accsys. The growing business maturity is being reflected through a strengthened central team in a number of areas to effectively manage the visible and significant growth opportunities open to the group. The clear success of Accoya to date (explained further below) is providing a strong foundation stone for a proposed step-up in scale and profitability. As the end of H122 approaches, we provide some more context for the key project areas of interest highlighted in the AGM commentary.

**Arnhem expansion:** Accsys began the first commercial production of solid Accoya wood from a single acetylation reactor in FY08. A third reactor was added to the existing two-reactor site in June 2018, taking the total processing capacity to c 60,000m$^3$ pa. Even though FY21 experienced some COVID-19-related disruption in the early part of the year, Accsys still sold out its capacity (60,466m$^3$, including running down finished goods stock). The fourth reactor – adding another 20,000m$^3$ (or one-third) capacity – is scheduled to be commissioned towards the end of this financial year. A two-year ramp-up to capacity is the stated target, although we also note that reactor 3 achieved this in a shorter timeframe. Note that the effective increase in Accoya wood capacity will be somewhat greater once Hull capacity is available; in FY21, c 18,000m$^3$ was sold to Medite (an important partner – co-investor and anchor customer – in a new Hull facility, see below), to be chipped and converted into Tricoya boards. Once a new Tricoya facility comes on stream, this volume is expected to switch across, freeing up additional Accoya wood output from Arnhem for sale to other third parties. Hence, the combination of a fourth reactor and this volume switch equates to an uplift of 90% in the availability of solid Accoya wood by the beginning of FY23 versus FY21. Therefore, to attain full utilisation of the enlarged Arnhem capacity infers significant sales growth potential by the end of FY24. Hence, we see this as an important commercial and market development phase for Accoya, sales of which to date have been capacity constrained.

**Completion/commissioning of Hull:** ground was first broken on the construction of a new, first of its kind, Tricoya production facility in Hull in July 2017, with expected completion at that time by the end of FY19. This timetable has been delayed by remedial construction works firstly and then by the COVID-19 pandemic and some engineering changes in FY21. In a year-end update, the risk of further slippage was flagged and this culminated in the termination of the agreement with the main contractor (Engie Fabricom) in June followed by a handover of the site to Accsys. Following a review period by Accsys management, the company announced (on 23 August) that the plant is now expected to operate commercially from July 2022 (which is slightly ahead of the worst-case 'H222' flagged at the end of FY21). The outstanding works are being managed by the Tricoya UK team (the JV entity) including direct engagement with project subcontractors. The total project cost to completion is now estimated to be c €90–96m (an increase of €9–15m); Accsys and the original main contractor have reached a full and final settlement position (terms not disclosed).

**Decision point on US JV:** Accsys is investigating the possibility of establishing an Accoya wood production facility in the US and formed a joint venture with Eastman Chemical (with the initial partnership announced in August 2020) for this purpose. We provide more detail on the background to date and a prospective timeline for its progression in the following section of this note.

**Other:** Accsys has strong **sustainability** credentials for the construction industry, sourcing 100% certified sustainably grown timber, enhancing its performance characteristics and lifespan for use in products that are biodegradable and fully recyclable. This is attractive to building specifiers, contractors and their supply chain, which are all becoming more aware of carbon footprint reduction obligations. Accsys has an established ESG framework and is committed to making a positive impact in each of these areas.

## Building foundations for US expansion

Accsys first entered the North American market in FY09, establishing distribution agreements and making initial Accoya sales following commercial production commencing at the Arnhem facility in the previous year. By FY21, Accoya volumes and revenues in the Americas had risen to 6,642$m^2$ and €13.2m respectively (and around 14% of total Accoya wood sales – 11% by volume – approaching double FY17 levels).

**Background:** in this market and others, Accsys has clearly had to balance business development with realistic supply capabilities given production capacity constraints versus demand for Accoya. Consequently, US market knowledge has been accumulated gradually over time, with a more notable uptick from FY16 onwards with more explicit commentary about the US being the largest market opportunity offering the greatest growth potential. Building staff and customer networks resulted in sales volumes rising from 3,495$m^3$ in FY17 to 6,642$m^3$ in FY21, with a couple of percentage points increase in the proportion of total Accoya wood sales allocated to the Americas.

**Establishing a US JV:** having referenced discussions to develop other international markets in the preceding year, Accsys disclosed that it had progressed to a more detailed stage with a prospective partner in FY19. As part of a wider fund-raising in November 2019 (c €43m net, chiefly for Arnhem expansion and Hull construction), some €1.5m was earmarked for preliminary evaluation work in conjunction with the Eastman Chemical Company (Eastman) within an anticipated 12- 18-month time frame. During this period, a 60:40 JV was formally established (Accoya USA LLC, announced in August 2020), followed by a well-supported placing and open offer raising c €35m net in May 2021 to cover Accsys's share of expected construction and start-up costs of a new Accoya production facility in the US. As stated earlier, the 17 September group update noted that the engineering and design work has now been completed with next-stage operational, commercial and financial discussions well underway. Also, the indicative plant completion date is 'mid-2023' and a decision on whether to proceed (or otherwise) is anticipated in the coming months.

**Facility outline:** the May 2021 equity raise provided more detail on the prospective US site. Based on the Arnhem facility, the initial phase is seen as establishing a two-reactor, 40,000$m^3$ pa Accoya production capacity. The site is believed to have expansion potential to up to eight reactors (c 160,000$m^3$ capacity) according to management. In context, the North American market is described as having a wider addressable market in Accoya's core decking, cladding, window and door subsegments and an achievable market of c 950,000$m^3$ by 2030. Unlike Arnhem, it is envisaged that the facility will have integrated closed-loop supply connections (ie inbound acetic anhydride, outbound acetic acid by-product) with an existing Eastman production facility. If the plant investment is approved by the JV partners, a two-year build cycle to the commissioning stage followed by a two-year ramp to attain full capacity production is the outline schedule. With an indicative mid-2023 completion date, if commercial operation started before the end of FY24, this would align with the target full capacity run rate at the enlarged Arnhem site. Hence, Arnhem volumes shipped to North America up to that point would then be available for other markets.

**Shrewd US partner selection:** Eastman (NYSE listed: EMN, US$15.7bn market cap) is a global, diversified speciality chemicals company and the largest producer of acetyls in North America operating from two plants. One of these – Kingsport, TN – is the proposed location for the JV facility. Immediately this suggests a committed partner with deep supply chain expertise which further enhances the logistics benefits that would be expected to accrue from local manufacture versus supply from a group sister company in Europe. Eastman also has a strong track record of building (as well as operating) chemical facilities. It may also be possible to use more locally grown timber (eg we know from other research that loblolly pine is a prevalent forestry species grown in the south-east United States), but this is subject to validation and the project is not dependent on this. Clearly, shorter supply lines, increased product availability and better service levels all improve the attraction of Accoya wood to existing and prospective customers.

## FY21 results overview

**Financials:** FY21 results were consistent with pre-close headlines including group revenue of c €100m (+10%) with Accoya acetylated wood volumes up 4.5% (to c 60,500m$^3$). This fed down into a 58% EBITDA uplift to €10.3m (pre IFRS 16 and share-based payments) and positive EBIT and PBT contributions for the year as a whole after some COVID-19 disruption in Q1.

**Exhibit 1: Accsys – interim and divisional splits**

| €m | H120 | H220 | 2020 | H121 | H221 | 2021 | % change y-o-y | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | H121 | 2021 |
| **Group revenue** | **44.0** | **46.9** | **90.9** | **42.9** | **56.9** | **99.8** | **-2.4%** | **9.8%** |
| Accoya | 43.7 | 46.4 | **90.0** | 41.8 | 55.8 | **97.6** | -4.2% | **8.5%** |
| Wood revenue | 40.2 | 42.7 | **82.8** | 38.7 | 52.4 | **91.1** | -3.7% | **10.0%** |
| Licence income | 0.0 | 0.0 | **0.0** | 0.4 | 0.0 | **0.4** | N/M | **N/M** |
| Other | 3.5 | 3.7 | **7.2** | 2.7 | 3.4 | **6.1** | -21.6% | **-14.5%** |
| Tricoya | 0.3 | 0.5 | **0.9** | 1.1 | 1.0 | **2.2** | 230.8% | **145.9%** |
| Wood revenue | 0.1 | 0.5 | **0.5** | 1.1 | 1.0 | **2.1** | 1813.8% | **308.4%** |
| Licence income | 0.3 | 0.0 | **0.3** | 0.0 | 0.0 | **0.0** | N/M | **N/M** |
| Other | 0.0 | 0.1 | **0.1** | 0.0 | 0.1 | **0.1** | N/M | **N/M** |
| **Group operating profit** | **-0.4** | **1.8** | **1.4** | **1.6** | **3.0** | **4.5** | **N/M** | **232.2%** |
| Accoya | 5.3 | 7.3 | **12.6** | 7.0 | 10.2 | **17.2** | 31.6% | **36.3%** |
| Tricoya | -1.3 | -2.0 | **-3.3** | -1.4 | -2.1 | **-3.5** | 12.9% | **7.8%** |
| R&D | -0.6 | -0.6 | **-1.2** | -0.5 | -0.6 | **-1.1** | -22.4% | **-8.6%** |
| Corporate | -3.9 | -2.9 | **-6.8** | -3.5 | -4.5 | **-8.0** | -8.3% | **18.6%** |

Source: Company data

There was some COVID-19-related disruption at the **Arnhem/Accoya** facility in Q1, although production continued at lower levels rather than ceasing completely but, this apart, it operated at capacity for the remainder of the year. This, together with higher average selling prices, sustained a manufacturing margin of 33.5%, c 200bp above the prior year, and drove a c €4.6m uplift in divisional EBITDA (to €21.6m). Progress was also made in constructing a fourth reactor to increase capacity by one-third (to 80,000m$^3$) and this project is on track for completion by the end of FY22 as previously flagged. During the year, the prospective US Accoya facility moved from early-stage discussions into a formal JV and detailed evaluation stage. We do not believe that this had a material impact on the trading result; €0.4m licence fee income was received from the JV partner (part of the Accoya – other line in Exhibit 1), which was probably at least matched by pre-JV evaluation costs. Also, costs associated with the fourth reactor project would have been capitalised along with spend on capital equipment.

Ongoing delays as the new **Hull/Tricoya** facility project entered its final phase meant that it made no P&L contribution in FY21. The Tricoya wood revenue shown in Exhibit 1 related to boards manufactured by customers from Arnhem-sourced material, which Accsys distributed for market development purposes. It should be noted that Tricoya represented over a quarter of Accoya volume sold (in chipped form) and was the group's largest end-market in FY21, exceeding UK/Ireland, which has been the largest geographic market for some time. As noted elsewhere, production is now expected to begin in July 2022 (ie H123) and we continue to believe that market risk appears to be low with a supportive anchor customer offtake and JV partner in Medite.

**Cash/net debt:** the core (pre-IFRS 16) end-FY21 net debt position of c €7m reduced from c €20m a year earlier, benefiting from increased profitability, a working capital inflow and more restrained capital deployment (especially into the Hull project but also the phasing of Arnhem expansion capex). Nevertheless, c €12m was spent on capex in the year – c 3x the right of use depreciation charge – so growth capex was still significant. We should also mention that non-trading cash inflows relating to Tricoya (c €6m new equity subscribed for by JV partners to finance their share of capex) and the group (c €3m new Accsys shares issued to Volantis on the exercise of equity options) were also received in the year. For the record, IFRS 16 lease liabilities on hand at the end of FY21 were c €6m.

Taking a high-level view of **FY22e**, we have modelled a marginal year-on-year increase in group EBITDA as Accoya supply will still be capacity constrained. This is partially absorbed by working capital investment – especially in inventory but also receivables – interest and tax cash payments in aggregate. Hence, our working assumption of c €43m capex in the year (with Hull spend slightly above Arnhem) substantially drives our expected free cash outflow for the year. Below this, the c €35m May 2021 net equity raise is to be largely 'passed through' to fund Accsys's share of equity investment in its US JV, with c €4m also allocated to support the working capital investment referred to above. So, as things stand, we anticipate end-FY22 core net debt being c €44m and beyond this a downward trend as new capacity kicks in and supports increased profit levels. We should caveat this commentary by noting that the capex programmes are material and potentially subject to timing changes.

## Estimates reinstated: Key operating assumptions

The group EBITDA, earnings profile and cash flow characteristics over our estimate horizon (shown in Exhibit 2) will obviously be influenced by the timing and execution of capital expenditure as new capacity comes on stream. We outlined some discrete events for investors to track earlier in this note and, in reinstating our estimates here, we outline key assumptions over our estimate horizon to FY24.

- **Arnhem:** baseload three reactors currently in operation, producing Accoya wood at full capacity (c 60,000$m^3$ pa).
- **Arnhem:** fourth Accoya reactor (+20,000$m^3$ annual capability) comes on stream at the beginning of FY23 and produces at 50% capacity in that year and exceeding 80% in FY24.
- **Hull:** facility comes on stream during Q223, with an output of approximately one-third of annual Tricoya capacity (facilitated by switching volumes currently produced at Arnhem). EBITDA break-even for this facility has been stated at 40% of capacity, so we expect a positive contribution in H223, followed by growth in FY24, assuming 80% capacity utilisation.
- **US JV:** the decision to proceed with establishing a US facility has not yet been taken and we have elected to assume that that the prospective Kingsport plant does not contribute within our three estimate years. Hence, we have not factored in production output or revenues over this time period. Consequently, only costs incurred but not capitalised during this period (eg staff hires, other organisational costs) will be captured below the group EBIT line as Accsys's share of JV loss. We expect these losses to be broadly offset by expected licence income (recorded in the Accoya – other line). These assumptions are subject to revision if the investment and a definitive build timeline are confirmed.

Following the 29 July announcement of the acquisition of assets and inventory from Lignia Wood Company to accelerate **Accoya Color**[2] business development, we have also included a contribution from this investment in our estimates, although it is not material in the context of the key assets above. Lastly, note that we have not included any contribution or cash flows relating to an agreement with the **Petronas Chemicals Group** to evaluate the feasibility of establishing Tricoya production in Malaysia. A full-blown 40,000$m^3$ equivalent Tricoya plant in Malaysia has been outlined as part of the Accsys 2025 growth strategy in a similar JV structure to the US project, but based on the Hull facility once its potential operational performance can be properly evaluated.

[2] Accsys to grow Accoya Color production with new assets – Accsys Technologies (accsysplc.com)

We have summarized the above assumptions diagrammatically in Exhibit 2, including our expected annual volume progression split down by production facility and revenue and EBIT expectations for the coming three reporting years. Interim figures are also included but intended to be illustrative at this stage; in FY23 volumes from the start-up fourth reactor at Arnhem and the new Hull Tricoya facility will clearly be back-end loaded in that year as production ramps up going into FY24 also.

**Exhibit 2: Accsys – capacity expansion timeline/indicative volumes versus Edison estimates**

| | Capacity pa 000m$^3$ | H122e | H222e | FY22e | H123e | H223e | FY23e | H124e | H224e | FY24e |
|---|---|---|---|---|---|---|---|---|---|---|
| Arnhem: reactors 1-3 | 60.0 | 31.0 | 30.0 | **61.0** | | | **60.0** | | | **60.0** |
| Arnhem: reactor 4 | 20.0 | | | | 3.0 | 7.0 | **10.0** | | | **17.5** |
| Hull* | 40.0 | | | | 2.0 | 11.5 | **13.5** | | | **32.0** |
| **Total production** | | | | **61.0** | | | **83.5** | | | **109.5** |
| US JV**: 2 reactors | 40.0 | | | ***N/A*** | | | ***N/A*** | | | ***N/A*** |

**Notes:**

| | |
|---|---|
| Arnhem: reactors 1-3 | H121 some inventory benefit, H221 maintenance shutdown. Assume at given capacity thereafter |
| Arnhem: reactor 4 | Onstream & producing commercially from 1 April. Assume 2 year ramp to capacity |
| Hull* (consolidated) | c 30,000 metric tonnes per annum equivalent: commercial production starts July (Q2) FY23 |
| US JV** (equity accounted) | We do not currently factor in commercial production starting over our estimate horizon |

| March y/e | €m | H122e | H222e | FY22e | FY23e | FY24e |
|---|---|---|---|---|---|---|
| **Revenue** | | **52.1** | **53.9** | **106.1** | **149.3** | **190.9** |
| Accoya | | 51.1 | 52.4 | **103.6** | **130.2** | **144.3** |
| Tricoya | | 1.0 | 1.5 | **2.5** | **19.1** | **46.6** |
| EBITDA* | | 5.3 | 5.4 | 10.7 | 28.0 | 41.6 |
| Depreciation/Amortisation* | | 2.5 | 4.2 | 6.7 | 10.8 | 11.7 |
| **EBIT norm (IFRS16)** | | **2.7** | **1.3** | **4.0** | **17.2** | **29.9** |
| Accoya | | 9.7 | 9.3 | **19.0** | **28.7** | **32.9** |
| Tricoya | | -2.1 | -2.5 | **-4.5** | **-0.3** | **9.0** |
| Other (R&D/Corporate) | | -4.9 | -5.5 | **-10.4** | **-11.2** | **-11.9** |

*pre IFRS16 basis

Source: Edison Investment Research

## Valuation framework

Accsys is comprised of an established, profitable and growing Europe-based Accoya operation and a nascent UK Tricoya business that is expected to generate its first revenues in the next twelve months. (Other opportunities exist in the US and the Far East though they are not having a major impact on the group P&L at this stage.) Looking at conventional cash flow multiples for this maturing but still developing business model, relatively high EV/sales and EV/EBITDA multiples of 3.4x and 33.7x for the current year reduce significantly to 1.8x and 8.1x respectively by FY24 as new capacity ramps up in its first full year of operation.

The nature of having two – and prospectively three – discrete manufacturing facilities contained within different corporate structures would lend itself to a separate DCF approach for each individual component of the group, in our view. (We acknowledge that this is a simplification given that technology ownership, licence/royalty flows and industry knowledge are all shared to some extent.)

- **Arnhem (Accoya)** – wholly owned by Accsys.
- **Hull (Tricoya)** – intellectual and physical assets reside in separate corporate vehicles (Tricoya Technologies (TTL) owns the Tricoya IP and TVUK is the owner/operator of the Hull facility. Accsys's overall 'look-through' ownership of the Hull plant is c 47% with interrelated shareholdings, as follows:
  - TTL: Accsys 76.5%, Medite 11.3%, Ineos 8.5% and BGF/Volantis 3.7%; and
  - TVUK: TTL 61.8%, Ineos 30.0% and Medite 8.2%.
- **US JV (Accoya)** – 60% owned by Accsys, 40% Eastman Chemical Company.

For the time being and for illustrative purposes, we run a **DCF on Arnhem/Accoya only.**[3] Our preliminary findings are:

- The current 164.5p share price is equivalent to a c 3% (price and cost) inflation scenario, for the Arnhem operation alone, without loading group-related costs into the model.
- Including group-related costs reduces the DCF to c 100p, which suggests:
  - some value from Hull/Tricoya and/or US/Accoya is already built into the share price; although they are obviously yet to demonstrate their financial characteristics in volume terms at least it is worth noting that together they effectively double group capacity; and
  - leveraging group IP to generate additional scale through new revenue and profit streams can generate significant incremental value for shareholders. For example, both Hull and the prospective US facility have scope to increase capacity over and above their initial plant footprints. Of course, there would also be capex associated with achieving such an expansion but, with existing infrastructure in place, the returns could be amplified.

It should be noted that there is additional value that could be recognised over and above this DCF approach arising from possible future licence agreements/royalty flows and also from UK tax losses, which would most likely require UK earnings to crystallise them. Once the returns from the completed Hull facility are visible and if the US project does proceed, we anticipate adopting an individual DCF methodology for all three business components and providing an additional aggregate, group-level valuation.

[3] Approach uses three years of Edison estimates (FY22–24) and extrapolates out FY31 (assuming Arnhem's four-reactor capacity is effectively fully utilised). WACC 8.5%, terminal growth 2%.

Exhibit 3: Financial summary

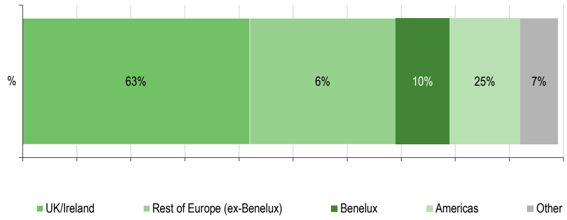
| €m | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022e | 2023e | 2024e |
|---|---|---|---|---|---|---|---|---|---|---|
| March | IFRS | IFRS | IFRS | IFRS | IFRS | IFRS | IFRS | IFRS | IFRS | IFRS |
| **PROFIT & LOSS** | | | | | | | | | | |
| Revenue | 46.077 | 52.769 | 56.529 | 60.911 | 75.153 | 90.909 | 99.803 | 106.062 | 149.275 | 190.938 |
| Cost of Sales | (33.842) | (34.597) | (42.175) | (47.270) | (56.517) | (63.402) | (66.714) | (70.724) | (94.568) | (120.645) |
| Gross Profit | 12.235 | 18.172 | 14.354 | 13.641 | 18.636 | 27.507 | 33.089 | 35.337 | 54.708 | 70.293 |
| EBITDA* | (1.275) | 2.384 | (1.484) | (3.500) | 0.903 | 5.880 | 9.291 | 10.710 | 27.978 | 41.621 |
| Operating Profit (before GW and except.) | (3.750) | (0.288) | (4.197) | (6.577) | (3.063) | 1.364 | 4.530 | 4.010 | 17.210 | 29.940 |
| Intangible Amortisation | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Exceptionals | (2.670) | 0.000 | 0.033 | (1.650) | (1.440) | 3.661 | (0.797) | 0.000 | 0.000 | 0.000 |
| Other | (1.098) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | (0.144) | (0.246) | (0.364) | (2.014) |
| Operating Profit | (7.518) | (0.288) | (4.164) | (8.227) | (4.503) | 5.025 | 3.589 | 3.764 | 16.846 | 27.926 |
| Net Interest | (0.135) | (0.178) | (0.300) | (2.174) | (3.117) | (3.517) | (3.249) | (3.596) | (4.546) | (4.546) |
| Profit Before Tax (norm) | (3.885) | (0.466) | (4.497) | (8.751) | (6.180) | (2.153) | 1.137 | 0.168 | 12.300 | 23.380 |
| Profit Before Tax (statutory) | (7.653) | (0.466) | (4.463) | (10.401) | (7.620) | 1.508 | 0.340 | 0.168 | 12.300 | 23.380 |
| Tax | (0.607) | (0.402) | (0.666) | 0.251 | 0.782 | (0.631) | (1.251) | (1.553) | (4.061) | (6.443) |
| Profit After Tax (norm) | (5.590) | (0.868) | (5.163) | (8.500) | (5.397) | (2.784) | (0.114) | (1.385) | 8.239 | 16.937 |
| Profit After Tax (statutory) | (8.260) | (0.868) | (5.129) | (10.150) | (6.837) | 0.877 | (0.911) | (1.385) | 8.239 | 16.937 |
| | | | | | | | | | | |
| Average Number of Shares Outstanding (m) | 88.5 | 89.6 | 90.4 | 111.2 | 116.3 | 132.7 | 164.9 | 189.3 | 192.4 | 192.4 |
| EPS - normalised (€) | (0.06) | (0.01) | (0.05) | (0.07) | (0.04) | (0.01) | 0.01 | (0.00) | 0.04 | 0.08 |
| EPS - statutory (€) | (0.09) | (0.01) | (0.05) | (0.08) | (0.05) | 0.02 | 0.00 | (0.00) | 0.04 | 0.08 |
| Dividend per share (€) | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | |
| Gross Margin (%) | 26.6 | 34.4 | 25.4 | 22.4 | 24.8 | 30.3 | 33.2 | 33.3 | 36.6 | 36.8 |
| EBITDA Margin (%) | -2.8 | 4.5 | -2.6 | -5.7 | 1.2 | 6.5 | 9.3 | 10.1 | 18.7 | 21.8 |
| Operating Margin (before GW and except.) (%) | -8.1 | -0.5 | -7.4 | -10.8 | -4.1 | 1.5 | 4.5 | 3.8 | 11.5 | 15.7 |
| | | | | | | | | | | |
| **BALANCE SHEET** | | | | | | | | | | |
| Fixed Assets | 29.562 | 31.252 | 32.520 | 71.488 | 116.062 | 137.645 | 155.607 | 223.733 | 225.503 | 220.258 |
| Intangible Assets | 10.014 | 10.980 | 10.839 | 10.657 | 10.790 | 10.986 | 10.865 | 10.431 | 9.997 | 9.563 |
| Tangible Assets | 19.548 | 20.272 | 21.681 | 60.831 | 105.272 | 126.659 | 144.416 | 181.832 | 184.180 | 179.615 |
| Investments | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.326 | 31.470 | 31.326 | 31.080 |
| Current Assets | 24.066 | 22.590 | 61.268 | 63.505 | 36.524 | 69.761 | 72.491 | 40.318 | 53.441 | 82.620 |
| Stocks | 7.894 | 8.345 | 11.796 | 13.125 | 14.008 | 16.932 | 12.262 | 14.999 | 16.056 | 20.483 |
| Debtors | 3.912 | 4.967 | 7.402 | 9.178 | 12.198 | 9.236 | 10.726 | 12.843 | 19.213 | 25.827 |
| Cash | 10.786 | 8.186 | 41.173 | 39.698 | 8.857 | 37.238 | 47.598 | 10.271 | 14.161 | 32.165 |
| Current Liabilities | (10.701) | (9.842) | (14.599) | (21.414) | (26.419) | (23.961) | (42.285) | (44.623) | (51.275) | (58.273) |
| Creditors | (10.437) | (9.488) | (14.144) | (18.029) | (19.997) | (18.696) | (32.621) | (34.959) | (41.611) | (48.609) |
| Short term borrowings | (0.264) | (0.354) | (0.455) | (3.385) | (6.422) | (5.265) | (9.664) | (9.664) | (9.664) | (9.664) |
| Long Term Liabilities | (1.799) | (1.947) | (22.718) | (40.084) | (52.508) | (56.310) | (49.210) | (49.210) | (49.210) | (49.210) |
| Long term borrowings | (1.799) | (1.947) | (22.718) | (40.084) | (52.508) | (52.048) | (44.626) | (44.626) | (44.626) | (44.626) |
| Other long term liabilities | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | (4.262) | (4.584) | (4.584) | (4.584) | (4.584) |
| Net Assets | 41.128 | 42.053 | 56.471 | 73.495 | 73.659 | 127.135 | 136.603 | 170.218 | 178.458 | 195.394 |
| | | | | | | | | | | |
| **CASH FLOW** | | | | | | | | | | |
| Operating Cash Flow | (3.873) | 0.452 | (1.304) | (1.756) | (1.374) | 2.213 | 20.130 | 8.617 | 26.291 | 36.789 |
| Net Interest | (0.138) | (0.186) | (0.248) | (0.671) | (1.180) | (2.250) | (4.380) | (3.401) | (4.351) | (4.351) |
| Tax | 0.263 | 0.229 | (0.745) | (2.013) | 1.674 | 0.165 | 0.071 | (1.553) | (4.061) | (6.443) |
| Capex | (1.108) | (4.052) | (2.608) | (29.895) | (48.915) | (22.901) | (12.356) | (43.682) | (12.682) | (6.682) |
| Acquisitions/disposals | 0.000 | 0.956 | 18.317 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Financing | 0.461 | 0.124 | 0.050 | 26.728 | 6.619 | 52.658 | 8.395 | 4.000 | 0.000 | 0.000 |
| Dividends | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Net Cash Flow | (4.395) | (2.477) | 13.462 | (7.607) | (43.176) | 29.885 | 11.860 | (36.019) | 5.197 | 19.313 |
| Opening net debt/(cash) | (13.050) | (8.723) | (5.885) | (18.000) | 3.771 | 50.073 | 20.075 | 6.692 | 44.019 | 40.129 |
| Finance leases | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | (1.308) | (1.308) | (1.308) | (1.308) |
| Other | 0.068 | (0.361) | (1.347) | (14.164) | (3.126) | 0.113 | 2.831 | 0.000 | 0.000 | 0.000 |
| Closing net debt/(cash) | (8.723) | (5.885) | (18.000) | 3.771 | 50.073 | 20.075 | 6.692 | 44.019 | 40.129 | 22.125 |
| IFRS 16 Leases | | | | | | 5.121 | 5.532 | 5.532 | 5.532 | 5.532 |

Source: Company accounts, Edison Investment Research. Note: *EBITDA is pre-IFRS 16.

**Contact details**

Brettenham House
2-19 Lancaster Place
London WC2E 7EN
United Kingdom
+44 (0)20 7421 4300
www.accsysplc.com

**Revenue by geography**




**Management team**

**CEO: Robert Harris**

Joined as CEO in November 2019. Previously CEO, Europe at Eco-Bat Technologies and with broad industry sector background experience at BP, Exxon-Mobil, British Vita, Nippon Glass and Reliance Industries.

**Financial Director: Will Rudge**

Joined as group financial controller in 2010 before becoming financial director in October 2012. Previous roles at Cadbury and Deloitte. Will is a chartered accountant.

**Chairman: Stephen Odell**

Joined initially as an NED, becoming chairman in September 2020. Extensive international board experience with Ford Motor Company, including chairman and CEO of Ford Europe, Middle East & Africa. NED at Evraz.

| Principal shareholders | (%) |
|---|---|
| Teslin Participaties Cooperatief UA | 16.1% |
| De Engh BV | 8.2% |
| BGF Investment Management | 7.1% |
| Decico BV | 5.1% |
| VP  Participaties BV | 5.0% |
| Majedie UK Equity Fund | 5.0% |
| Invesco Limited | 4.9% |
| The London & Amsterdam Trust Company | 4.5% |
| FIL Limited | 4.3% |
| Saad Investments Company Limited | 3.9% |
| Zurab Lysov | 3.7% |

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