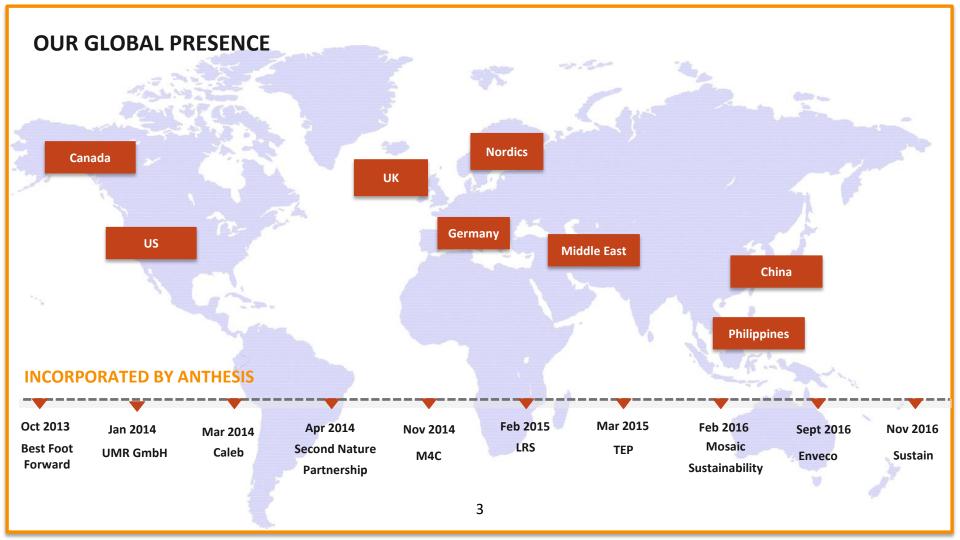


# **ABOUT ANTHESIS**

A brief introduction





### Anthesis study on "all WEEE flows"

#### Games console specific content, within a wider study

### **Durability**

- Games consoles have low failure rates, despite increasing complexity.
- 7<sup>th</sup> Generation had consumer perception of high failure rates, surveys yielded variable figures – many were inflated, and hardware revisions significantly improved reliability.
- 8<sup>th</sup> generation has generally enjoyed a much greater record of durability.
- Design to enable repair and component harvesting; consumers often receiving their own console back if returned.

#### Reuse

- Consoles generate significant consumer attachment compared to other devices, with owners likely to keep consoles long-term.
- Consumers are unlikely to dispose of consoles, unless they no longer function, due to high resale values and the long-term health of secondary market.
- Substantial C2C trading activity, even a decade after a product is discontinued – up to 0.5% of UK sold first generation consoles were traded in one year on eBay.



Key elements of the self-regulatory initiative (SRI)

Impacts on resource efficiency



#### Main commitments of the SRI

**Explicit requirements for participating manufacturers; focus on extending product life** 

| High Level Requirement  | Implications  |
|---|---|
| Information shall be provided to consumers, to support product life extension.  | <ul><li>Extended use phase</li><li>Greater C2C trading</li></ul>  |
| A refurbishment or out-of-warranty repair service will continue to be available. Parts and guidance will continue to be made available, to authorised repair centres. | <ul> <li>Greater, reliable and safe, reuse</li> <li>Non-destructive disassembly</li> <li>Component reuse</li> </ul>                 |
| Console plastics parts >25g will continue to be marked indicating their material composition.   | Targeted recycling  |
| Consider the feasibility of ensuring any plastic components >100g are removable and made of polymers compatible with recycling.                                       | <ul> <li>Non-destructive disassembly</li> <li>Greater harvesting / replacement of parts</li> <li>Greater recycling rates</li> </ul> |



# **External points of reference**

Insights into product durability and reuse



# Operational considerations when enabling reuse

The SRI focuses on prolonging product life and enabling reuse

|                            | Characteristics  | Case studies   |
|----------------------------|--|--|
| Factors that promote reuse | <ul> <li>High value</li> <li>Volume and standardisation</li> <li>Cultural factors</li> <li>Low cost return and refresh</li> <li>Immediate utility</li> </ul>   | <ul> <li>B2B IT</li> <li>Medical equipment</li> <li>Vending machines</li> <li>Mobile phones</li> <li>Pallets/railway line/beer kegs</li> </ul> |
| Factors that hinder reuse  | <ul> <li>Inventory/stock holding</li> <li>Access to parts and guidance</li> <li>Skills and H&amp;S concerns</li> <li>Low margins</li> <li>Access to units/routes to market</li> <li>Obsolescence</li> <li>Competing imperatives</li> </ul> | <ul> <li>Low value consumer electronics</li> <li>Built environment</li> <li>Metals</li> <li>Packaging</li> </ul>                               |



# Other commitments to reuse – comparing the SRI

Case study partnerships, voluntary initiatives and upcoming mandatory actions

| Initiative          | Description   | Relevant factors in the SRI  |  |
|---------------------|---|--|--|
| PAS 141             | Process based certification, to inspire confidence in reuse markets.    | Out of warranty repair, support for authorised repair centres.                         |  |
| ReBUS               | Funding for trial reuse business models (e.g. Samsung takeback).        | Take back via repair centres and support for C2C trading, through durability guidance. |  |
| IT<br>manufacturers | Working with iFixit to share information or repair.                     | Parts and guidance supplied to authorised repair centres; focus on skills and safety.  |  |
| Eco3 reuse guidance | Design considerations to enable greater reuse.                          | Support for non-destructive disassembly and guidance on parts removal.                 |  |
| Spanish waste plan  | 2% of furniture, textile, electrical, and "other" items must be reused. | Highly active reuse already; support to enable longer life and high value recovery.    |  |



# **Assessment of the SRI**

**Key considerations and reflections on external reference points** 



#### Assessment of the SRI

#### Key thoughts on the elements related to resource efficiency

- Focus on durability and reuse to prolong product life priorities in the waste hierarchy.
- This is appropriate, games consoles are highly reusable and are highly reused.
- Disassembly, access to components and expertise are all barriers to reuse.
- The SRI tackles these explicitly.
- The SRI has unparalleled coverage of a large market, albeit one with few players.
- There is a commitment to review progress and there are consequences for non-compliance.
- The SRI goes beyond standard practice in the broader sector and would be an example of leading practice.





# **Backup slides**

**Supplementary information relevant to the main presentation** 



# Anthesis study on "all WEEE flows"

**C2C** trading of older consoles remains high

| Console*         | Peak Sales Year | Youngest<br>Console (years) | Annual UK<br>eBay Sales | % Total UK<br>Stock |
|------------------|-----------------|-----------------------------|-------------------------|---------------------|
| Nintendo 64      | 1998            | 14                          | Up to 10,000            | 0.5 %               |
| Sony PlayStation | 1998            | 12                          | Up to 11,000            | 0.2 %               |
| Microsoft Xbox   | 2002            | 8                           | Up to 6,000             | 0.4 %               |

\*Anthesis analysis of publicly avaliable data

