Overcoming the Challenges of Gathering, Managing and Improving the Quality of Seafood Processing Industry Data

Tsvetina Yordanova
Seafish, Economics
United Kingdom
t_yordanova@seafish.co.uk
T: +44 (0) 131 524 8659

EAFE 2015 Conference, Salerno, Italy
Relevant Conference Theme: Economic data collection, new data needs and best practices
Overcoming the Challenges of **Gathering**, Managing and Improving the Quality of **Seafood Processing Industry Data** *Over a Period of Time*

- **Why does Seafish collect fish processing data?**
- **What data do we gather and how do we do it?**
- **What are some of the major challenges?**
- **What has helped to overcome them?**
Why do we collect fish processing industry data?

To provide an **economic evidence base** for business and policy decisions.

For submission under the **European Data Collection Framework**

For use in a detailed Seafish report providing an overview of the industry

To inform industry stakeholders on an ad-hoc basis
What processing data do we gather and how do we do it?

**Census Survey** – a biennial phone survey; aims at full industry coverage
- Number of processing units
- Employment levels
- Type of processing activities
- Species processed
- Other business activities

**Financial Survey** – all companies in scope contacted annually by post; voluntary participation
- Profitability, including turnover and costs
- Assets and liabilities

Published **financial accounts**, collected annually

Additional qualitative research
Data Collection – Overcoming the Challenges

<table>
<thead>
<tr>
<th>What is the difficulty?</th>
<th>What has worked well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Getting <strong>busy site managers</strong> to answer a series of detailed census questions over the phone</td>
<td>✓ Keep the questionnaire brief (constant length)</td>
</tr>
<tr>
<td>• <strong>Growing data requirements</strong></td>
<td>✓ Keep the questions simple to minimise the need for management input</td>
</tr>
<tr>
<td>• Getting multi-site companies to run through a survey form for each site</td>
<td>✓ Send bespoke consolidated form for multiple sites if needed</td>
</tr>
</tbody>
</table>
Overcoming the Challenges of Gathering, Managing and Improving the Quality of Seafood Processing Industry Data Over a Period of Time

What are the biggest challenges for data management and ongoing improvement?

What has worked well in tackling the difficulties?
## Data Management and Improvement – Overcoming the Challenges

<table>
<thead>
<tr>
<th>What is the difficulty?</th>
<th>What has worked well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing a robust link between sites and companies</td>
<td>✅ Integrate census and financial data for all years in a single relational database</td>
</tr>
<tr>
<td>• Site-level data (census)</td>
<td>✅ ‘Site ID – company ID – Year’ link is ‘the spine’ of the database</td>
</tr>
<tr>
<td>• Company-level data (financial survey/ accounts)</td>
<td>✅ Reinforce data integrity rules to ensure robust links with the other tables</td>
</tr>
<tr>
<td>• Ownership can change</td>
<td></td>
</tr>
</tbody>
</table>
## Data Management and Improvement – Overcoming the Challenges

<table>
<thead>
<tr>
<th>What is the difficulty?</th>
<th>What has worked well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merging data from multiple sources and time periods</td>
<td>✓ Best to have <strong>only one table per data source</strong> containing data for all years*</td>
</tr>
<tr>
<td>• e.g. ‘raw material cost’ in financial survey vs. ‘cost of goods sold’ in published</td>
<td>* requires merging data...</td>
</tr>
<tr>
<td>accounts data</td>
<td>✓ Merge the data <strong>independently for each variable and year</strong>, paying close attention</td>
</tr>
<tr>
<td>• e.g. ‘other costs’ in 2008 does not include distribution and packaging costs, while</td>
<td>to the definitions</td>
</tr>
<tr>
<td>in 2012 it does</td>
<td>✓ Decide ‘rules’ for treatment of different data and document them</td>
</tr>
<tr>
<td></td>
<td>✓ <strong>Automate</strong> complex data mergers</td>
</tr>
</tbody>
</table>
Key Pieces of Advice Based on Our Experience

- Brief, simple questionnaires, bespoke if needed
- Data storage of all data in a single database
- Single table for each data source / survey (but one for all years)
- Track business ownership structure
- Define in detail all variables, including the logic used to derive them if applicable
- When merging data from different sources or old and new data, do it for each variable individually
Thank you for your attention!
Any questions, comments or advice, please?

Tsveti Yordanova
Seafish, Economics
United Kingdom
t_yordanova@seafish.co.uk
T: +44 (0) 131 524 8659