

***The Swedish Drug Development
Pipeline produced five new
products during 2008
May, 2009***

A survey conducted by:

The Swedish Life Science Industry Organization
sweden BIO


Invest in Sweden Agency


VINNOVA

The survey 2009 of the Swedish Drug Development Pipeline

- In February - April 2009 a survey of the Swedish Drug Development Pipeline was conducted by SwedenBIO in cooperation with Invest in Sweden Agency (ISA) and VINNOVA.
- The survey includes projects originating and developed in Sweden*.
- SwedenBIO, ISA and VINNOVA will use the results to promote the Swedish Drug Development industry and to generate business contacts.
- SwedenBIO, ISA and VINNOVA would like to thank all the participating companies.
- An overview of projects originating from AstraZeneca as well as an overview of clinical trials performed in Sweden are summarized in the Appendices.

* The analysis does not include companies conducting research outside Sweden for example Pfizer, Roche and Amgen

Stable and advancing pipeline delivered five new products during 2008

- Number of projects in Phase I-III remains constant from 2008, at around 75 projects in phase I-III.
- Number of Drug Development companies in phase I-III remains constant at about 30.
- Five products were approved during 2008.
- Fewer pre-clinical projects reported
- The dominating therapeutic categories are neurological disorders and cancer-related conditions.
- 55 % of the projects in phase I-III are chemical molecules, 42 % are protein-based molecules and 3 % were not disclosed in the survey.

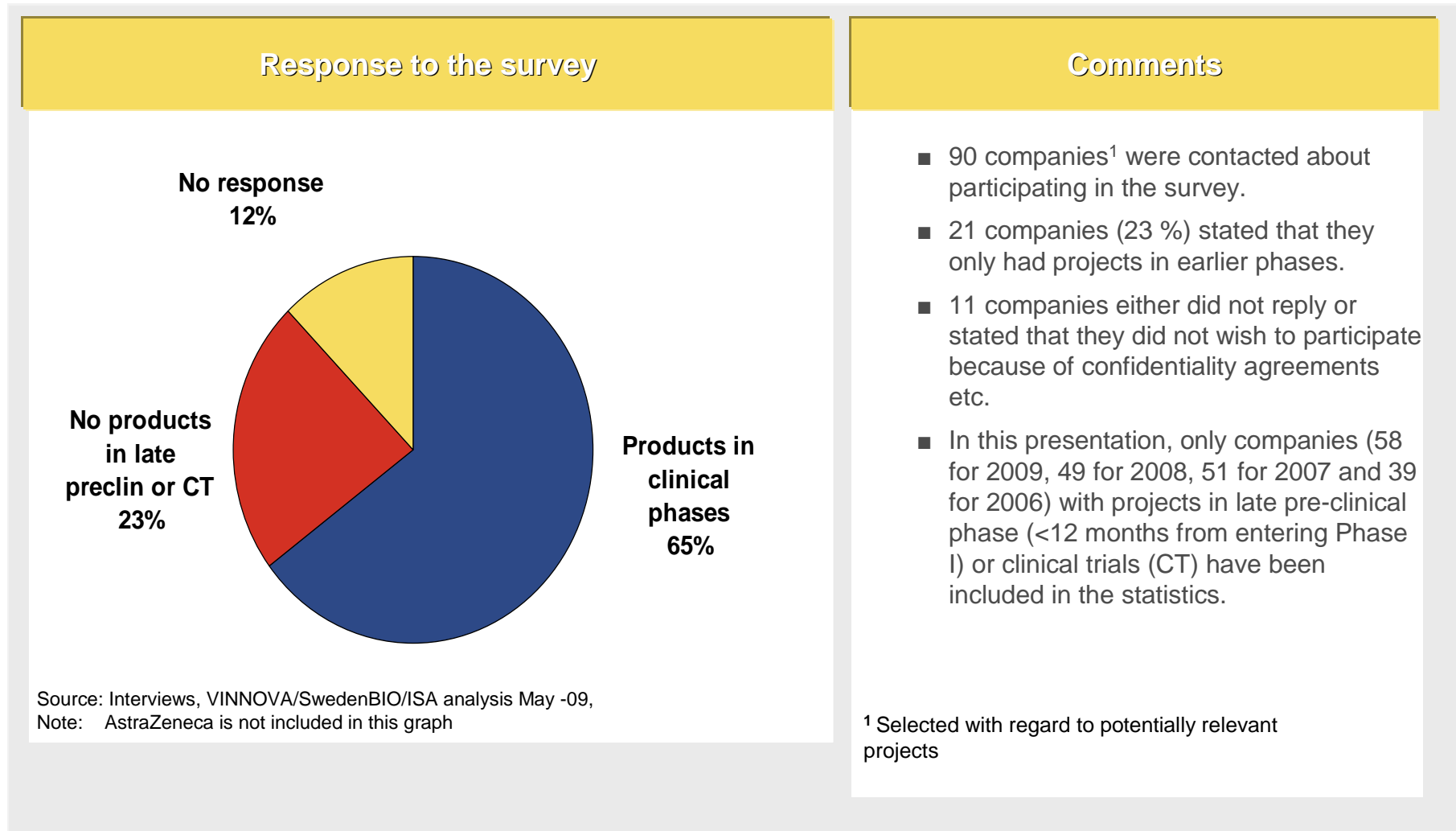
Appendix

A, Globally AstraZeneca has almost as many projects in their pipeline as all of the Swedish Drug Development companies.

B, Sweden is among the top ten countries in number of clinical trials performed.

Swedish Drug Development Pipeline 2009 – Survey details

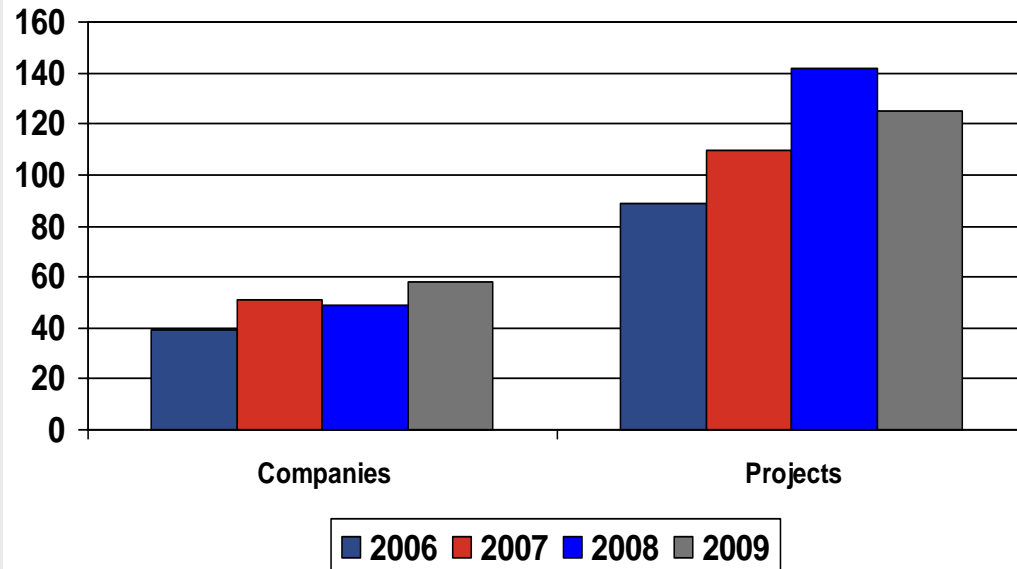
90 companies were asked and 78 responded



Swedish Drug Development Pipeline 2009 – Overview

More companies – fewer pre-clinical projects

Projects developed by Swedish Drug Development Companies in late pre-clinical to clinical phase III



Comments

■ **Comparison with last years' analysis:**

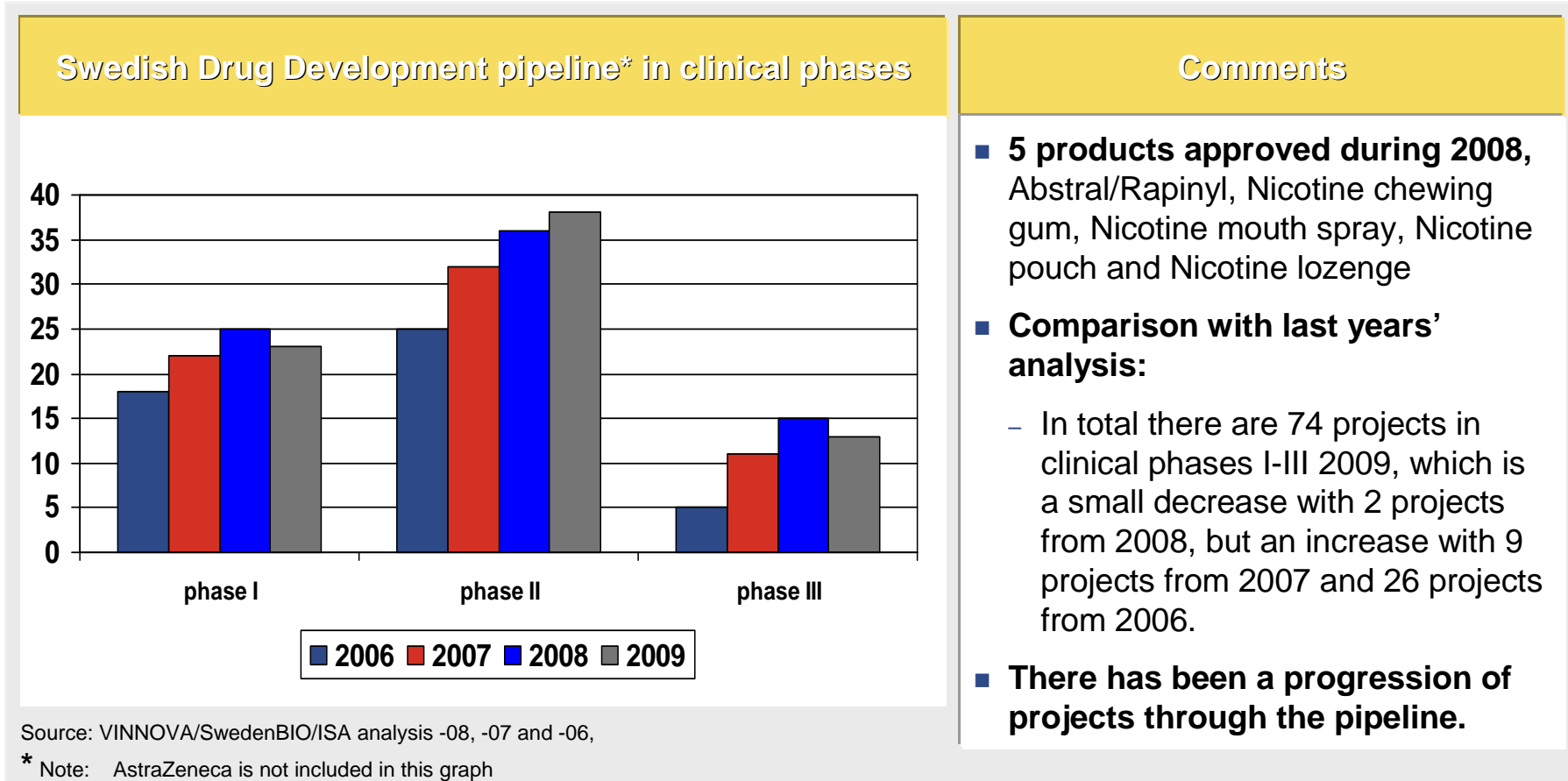
- The number of companies developing new products has increased from last year, with 58 companies 2009 and around 50 companies 2008 and 2007.
- The number of projects 2009 has decreased with 17 projects from 2008. This is mainly due to less projects in the late pre-clinical phase

Source: VINNOVA/SwedenBIO/ISA analysis -08, -07 and -06,

Note: AstraZeneca is not included in this graph

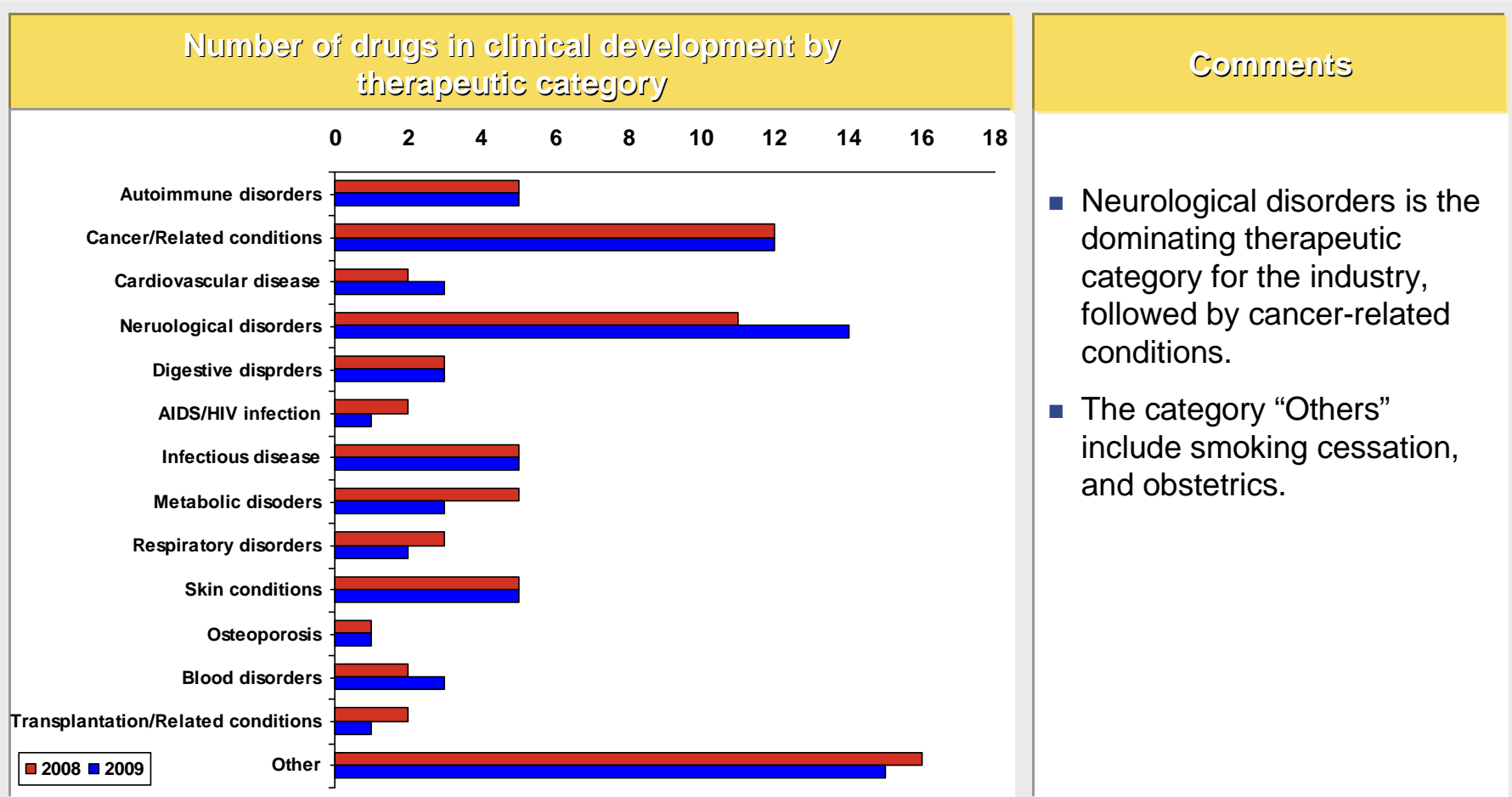
Swedish Drug Development Pipeline 2009 – Overview

Five products approved during 2008 and the pipeline is maturing



Swedish Drug Development Pipeline 2009 – Comparison 2008 and 2009 by therapeutic category in phase I-III

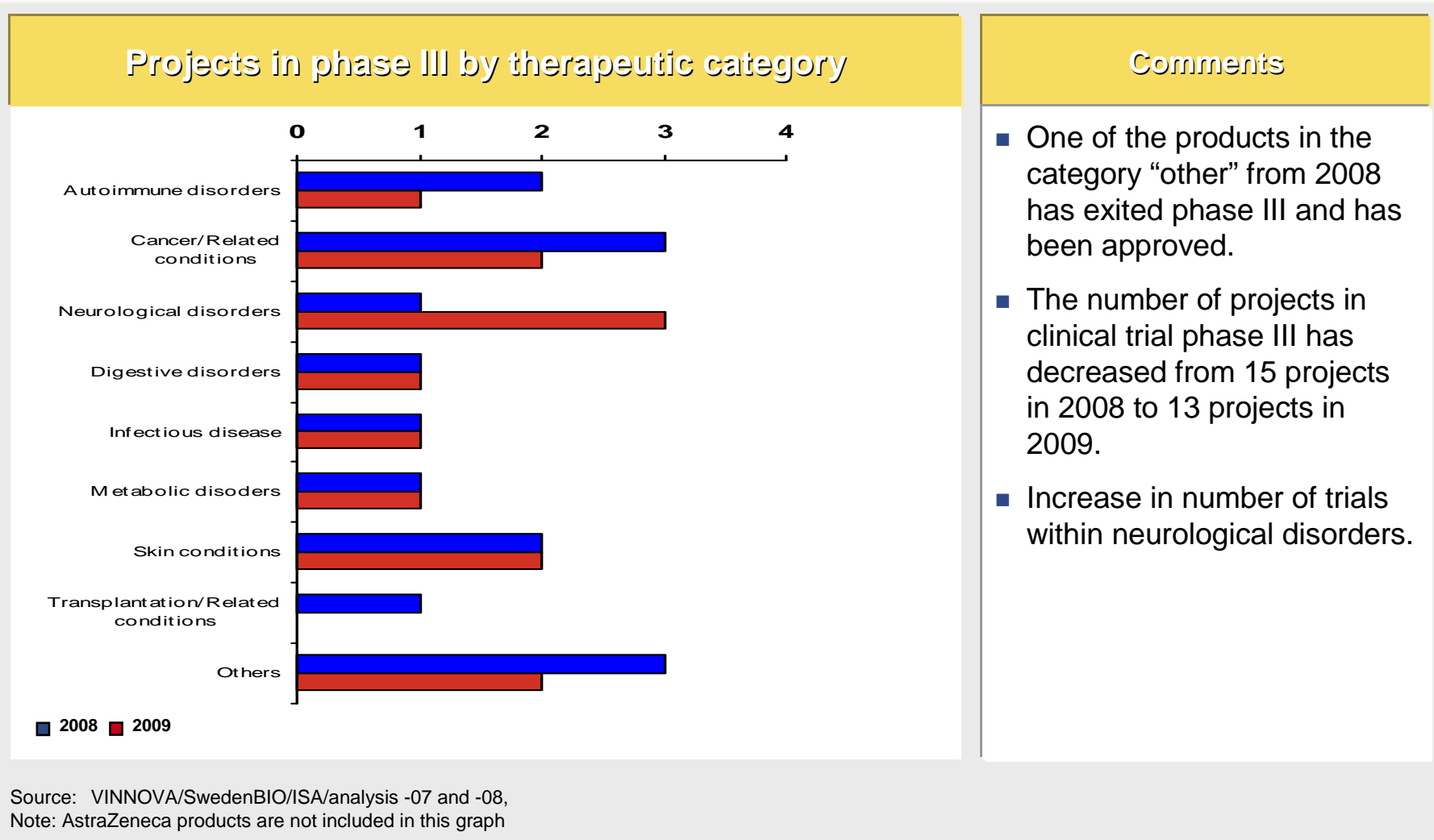
Neurological disorders and cancer-related conditions are dominating the pipeline



Source: VINNOVA/SwedenBIO/ISA/analysis -07 and -08,
 Note: AstraZeneca products are not included in this graph

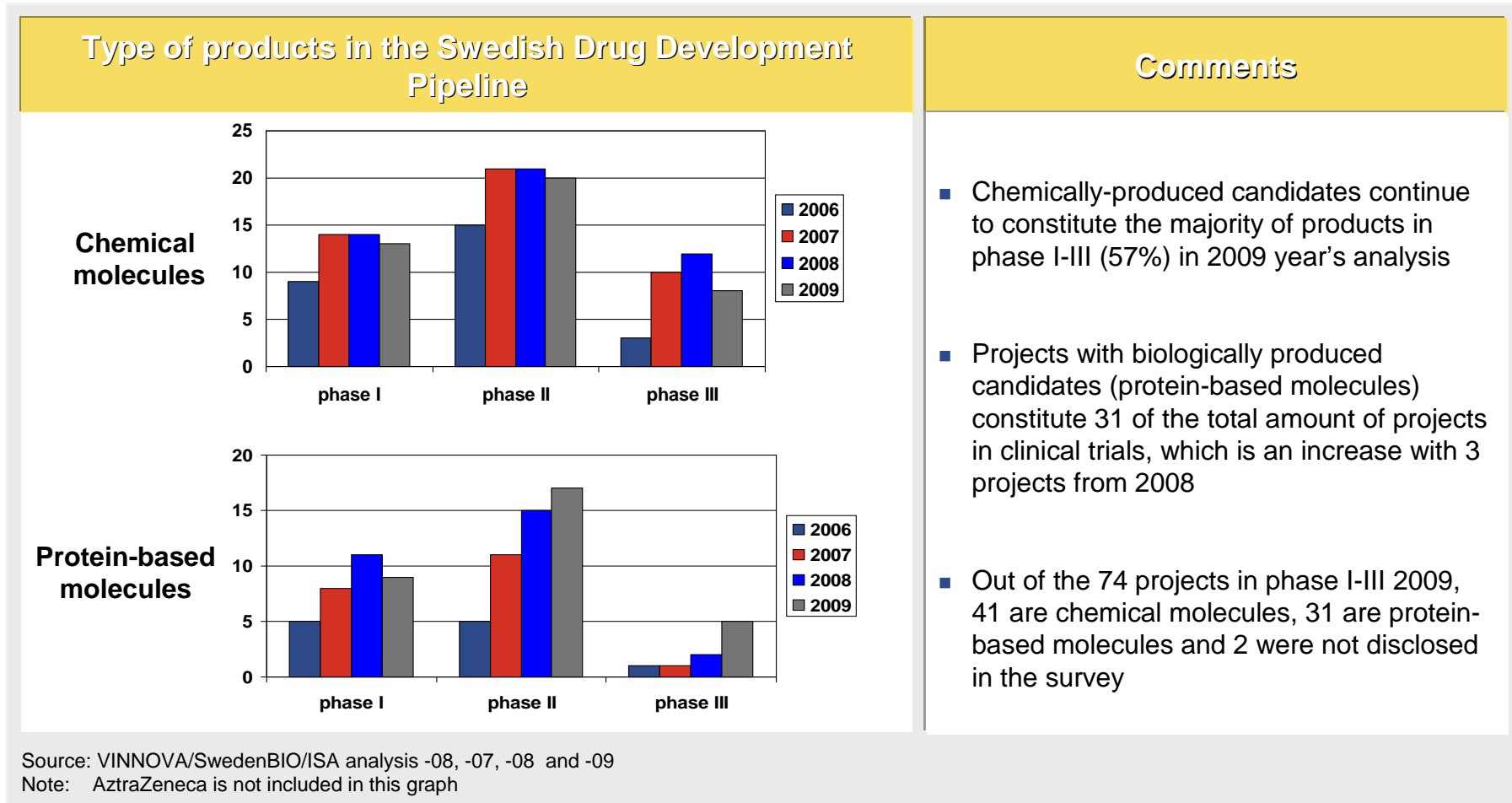
Swedish Drug Development Pipeline 2008 – Comparison phase III 2007 and 2008 by therapeutic category

Two projects within neurological diseases has progressed from phase II to phase III



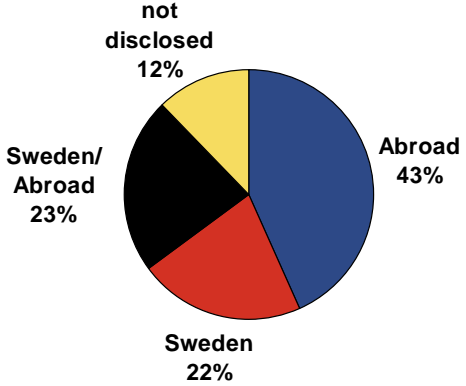
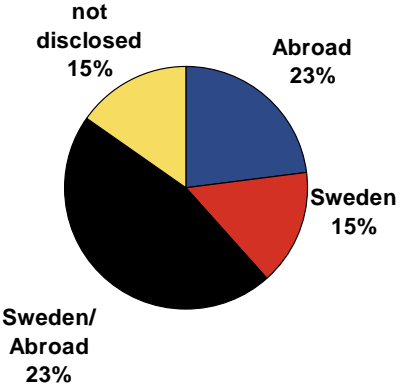
Swedish Drug Development Pipeline 2008 – Distribution of small and large molecules in phase I-III

Prominent increase in biologics, but chemical molecules still in majority with 10 more projects in phase I-III



Swedish Drug Development Pipeline 2008 – Location of Clinical Trials

Only 8 of 13 phase III projects will be tested in Sweden

Location of Clinical Trials	Comments																				
<p data-bbox="383 616 562 647">Phase I-III</p>  <table border="1" data-bbox="248 715 712 1102"><caption>Phase I-III Trial Locations</caption><thead><tr><th>Location</th><th>Percentage</th></tr></thead><tbody><tr><td>Abroad</td><td>43%</td></tr><tr><td>Sweden/Abroad</td><td>23%</td></tr><tr><td>Sweden</td><td>22%</td></tr><tr><td>not disclosed</td><td>12%</td></tr></tbody></table> <p data-bbox="927 616 1084 647">Phase III</p>  <table border="1" data-bbox="846 724 1249 1110"><caption>Phase III Trial Locations</caption><thead><tr><th>Location</th><th>Percentage</th></tr></thead><tbody><tr><td>Abroad</td><td>23%</td></tr><tr><td>Sweden/Abroad</td><td>23%</td></tr><tr><td>Sweden</td><td>15%</td></tr><tr><td>not disclosed</td><td>15%</td></tr></tbody></table>	Location	Percentage	Abroad	43%	Sweden/Abroad	23%	Sweden	22%	not disclosed	12%	Location	Percentage	Abroad	23%	Sweden/Abroad	23%	Sweden	15%	not disclosed	15%	<ul data-bbox="1323 539 1989 927" style="list-style-type: none">■ Of the projects developed in Sweden, a majority of the projects will be tested in clinics abroad.■ Of the 13 projects in phase III, 6 will be tested in clinics both in Sweden and abroad, 3 abroad and 2 in Sweden.
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<p>Source: VINNOVA/SwedenBIO/ISA analysis -09 Note: Graph excludes AstraZeneca</p>																					

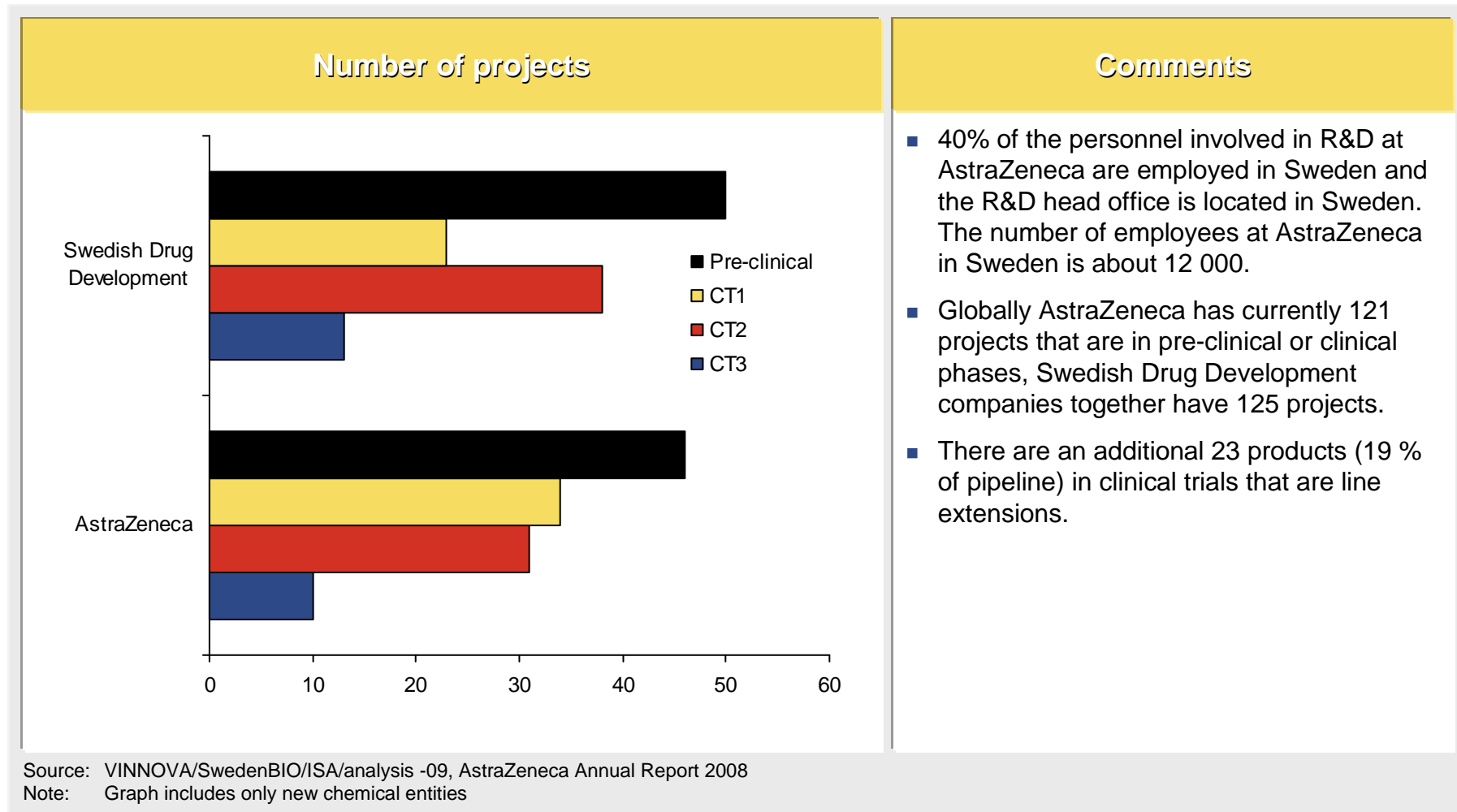
Five products approved during 2008 and a stable clinical pipeline advancing

- The pipeline stays essentially the same since 2008, and it will be interesting to analyse the pipeline next year to see if there has been any influence by the financial turmoil.
- There has been a progression through the phases (I-III) and 5 products were approved from the Medical Product Agency (MPA) during 2008.
- The Swedish companies pursue more protein-based projects, with an increase over the years, even though chemical molecules are still in majority with 41 projects compared to 31 protein-based projects.
- Projects in clinical phases will mainly be tested abroad, but a significant proportion will also be tested in Swedish clinics.
- Academia is still a very important contributor to the innovative research and many of the companies in the analysis are founded around ideas and projects originating in academia.

Appendix A

Swedish Drug Development Pipeline 2009 – AstraZeneca versus the Drug Development sector

Globally AstraZeneca has as many projects in clinical trials as all of the Swedish Drug Development companies together



Appendix B

Swedish Drug Development Pipeline 2009 – **Clinical Trials in Europe**

Sweden is among the top ten countries in number of clinical trials performed

