

# Gyros AB

*Accelerating biotherapeutic development with nano-scale innovation*

SwedenBio  
Life Science Investment Day Scandinavia 2010  
March 22, 2010, Stockholm



[www.gyros.com](http://www.gyros.com)

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## About Gyros



- Founded in 2000
- Financed by SLS Invest and Industrifonden
- Strategic focus on micro-scale immunoassays
  - 77 patents granted
  - 214 applications submitted
- HQ in Sweden,
  - Subsidiaries in the USA and Germany
- > 50 employees with full set of competences
  - Development, manufacturing & logistics
  - Marketing, sales, support & service
  - Microfluidics & immunoassays expertise
  - Senior management with biotech supply industry experience
- Latest version, Gyrolab™ xP, launched 2009
- Distributors in Asia-Pacific to be added in 2010



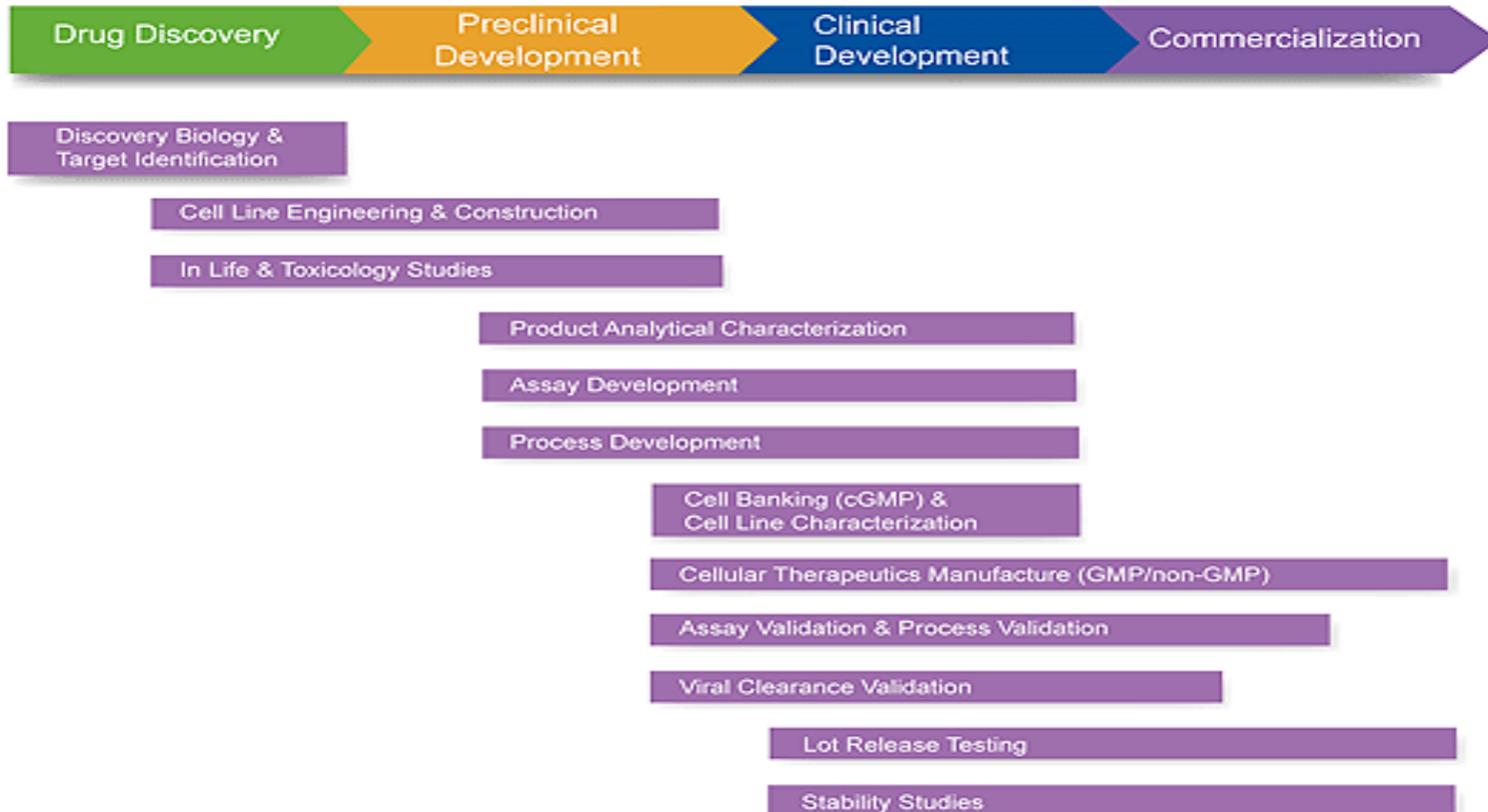
Gyros is the preferred choice by leading pharma, biotech, CRO and CMO's for protein quantification by IA when developing and manufacturing protein based therapeutics and vaccines



# Our Business Environment

## Development of Protein Therapeutics and Vaccines

It takes 10 to 15 years and \$1-1.5 billion



- Process development (cell media)
  - Binding molecule with desired properties?
  - How much DM and contaminants is there?
  - Specificity and binding characteristics of DM
  - Proportion of aggregate product in DM
- Clinical development (serum & plasma)
  - How long does DM reside in circulation?
  - How does TM and DM interact?
  - Signs of immune response against DM?
  - Any effect on biomarkers?



- Protein quantification by immunoassay (IA) in research and discovery, pre-clinical and clinical development and process development, manufacturing and quality control
- Development of Protein therapeutics and vaccines
  - Quantification
  - HCP, host cell proteins
  - Impurities
  - ADA, anti-drug-antibodies, immunogenicity
  - PK, pharmacokinetics
  - PD, pharmacodynamics
  - Hybridoma screening
- Understanding disease
  - Biomarker quantification



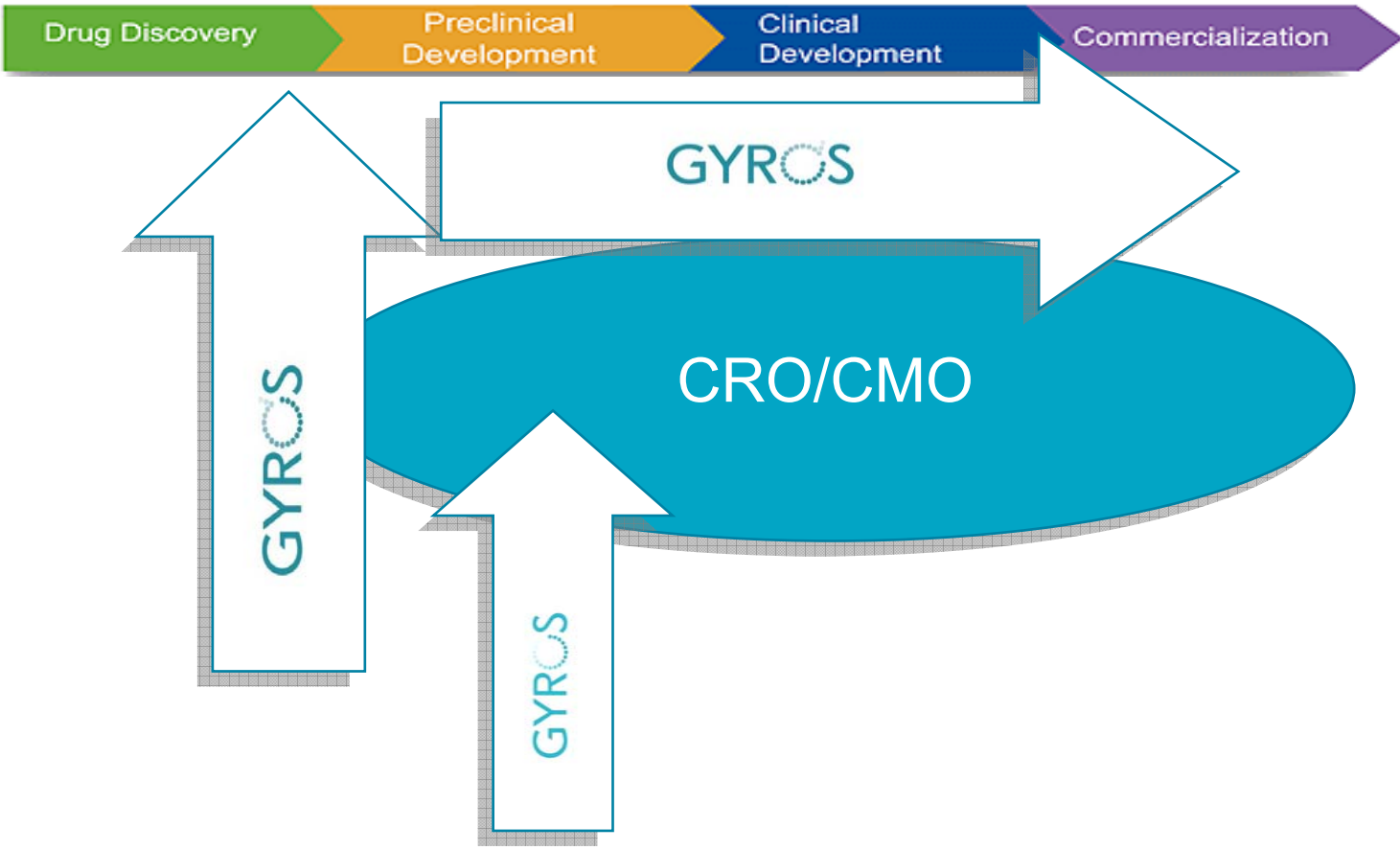
# Our customers

- Develop protein therapeutics or vaccines
  - CRO's & CMO's
  - Biotech's
  - Pharma's
- Demand improved efficiency in generating high quality data at all stages of protein therapeutics and vaccine development
  - Pre-clinical
  - Process development
  - Clinical (I, II & III)
  - Manufacturing/ QA
- Operate in global operations and partnership networks
  - Western Europe
  - North America
  - Asia Pacific (from 2010)



# Complex customer dynamics

Served by a 2-prong approach



# Nano-scale innovations that brings benefits to immunoassays

## Nanoliter volumes

- More data from scarce samples
- Reduced cost for sample and reagents
- Accurate volumes for analysis

## Unique flow-through design

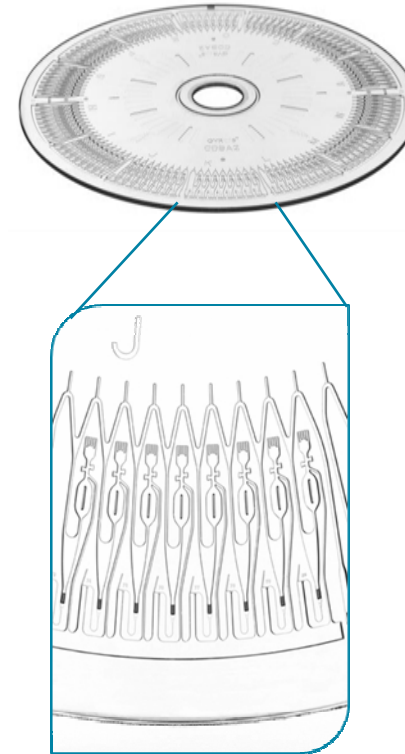
- Reduced matrix effects, high sensitivity
- Broader dynamic range (4 logs)
- Increased workflow efficiency

## Automation of the assay workflow within the CD

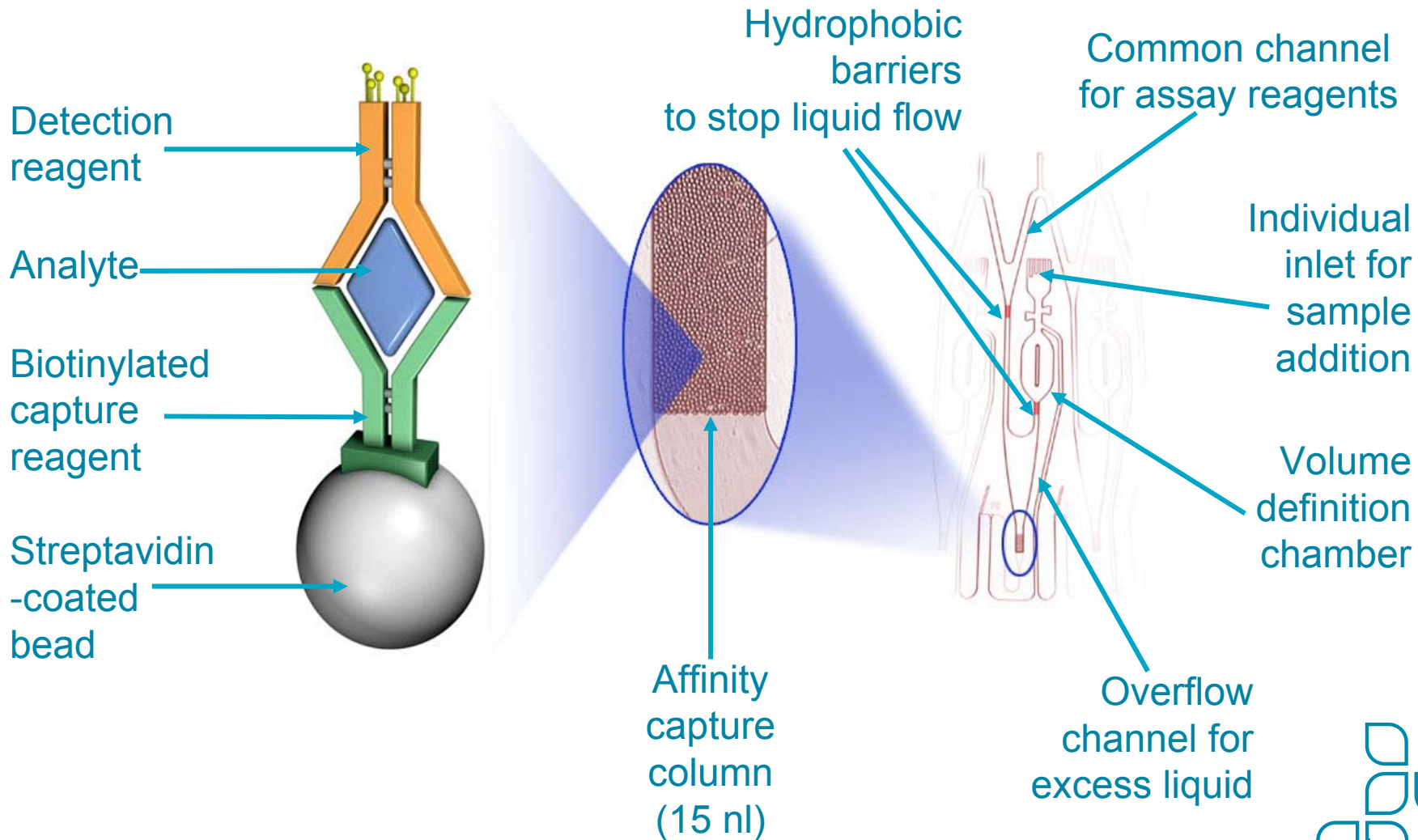
- No need for external robotic liquid handling
- Reduced hands-on time and labor costs
- Typical precision < 5% CV

## Rapid, parallel processing of all channels

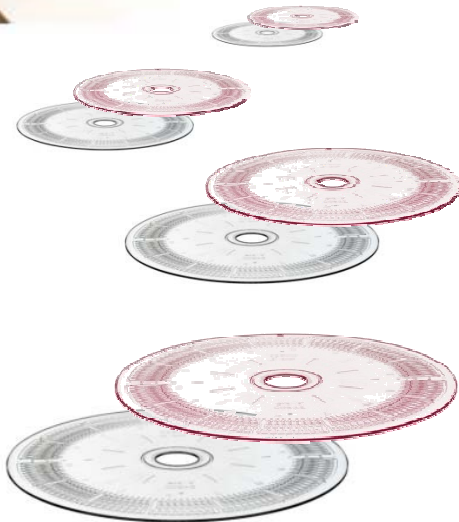
- 112 determinations in less than 1 hour
- Robust function based on capillary action, hydrophobic barriers and centrifugal force
- Assay methods developed in two days!



# Nano-scale precision CD structures



An automated system for High Performance Immunoassays



## Gyrolab™ xP

- Application-specific SW
- LIMS or stand alone mode
- CFR part 11 compliance

## CD microlaboratories

- Currently three types

## Buffers

- For convenience and robustness

## Support services

- Application support
- Assay development
- User training & certification
- Instrument service
- IQ/OQ and validation
- User meetings





## Addressing the challenges with immunoassays

High quality data  
Sensitivity  
Matrix effects  
Dynamic range  
User independence

Time for assay development  
Cost  
Turn-around time to results  
Assay transferability  
Automation

*“Gyrolab cuts project time, reduces workload and makes assay transfer easy!”*



# Acknowledged and accepted

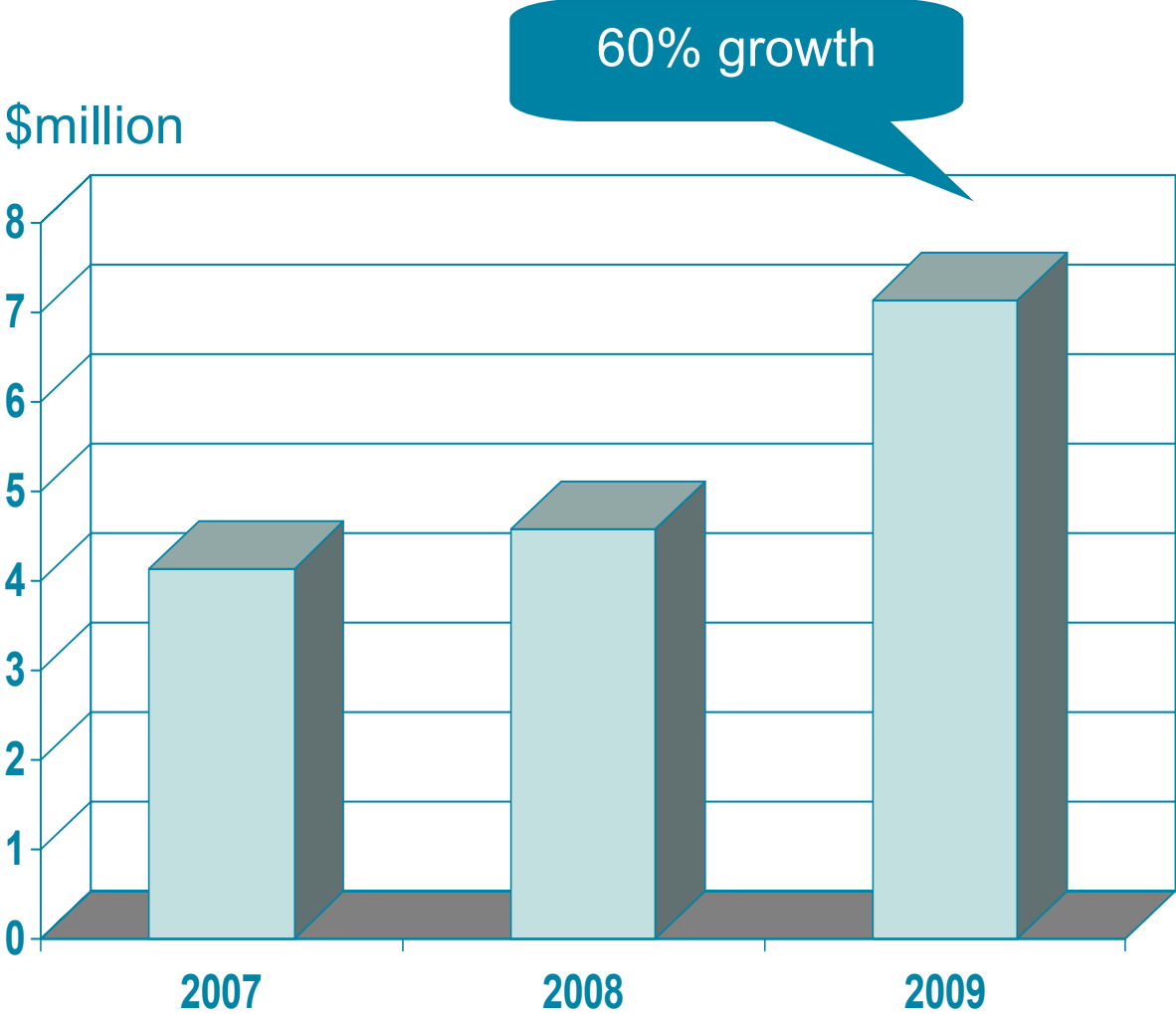
	<b>Ablynx</b> Ghent, Belgium	
	<b>Amgen</b> Thousand Oaks and Seattle, USA	
	<b>AstraZeneca</b> Södertälje and Mölndal, Sweden and Chamwood, UK	
	<b>National Research Centre for Working environment (AMI)</b> Copenhagen, Denmark	
	<b>Biogenidec</b> Cambridge, USA	
	<b>Bristol-Myers Squibb</b> Princeton, USA	
	<b>GE Healthcare Bio-Sciences</b> Uppsala, Sweden	
	<b>GlaxoSmithKline</b> RTP, USA and Stevenage, UK	
	<b>Huntingdon Life Sciences</b> Huntingdon, UK	
	<b>ICON</b> Manchester and Oxford, UK	

	<b>Merck</b> Westpoint and Rahway, USA	
	<b>Royal Institute of Technology</b> Stockholm, Sweden	
	<b>MedImmune</b> Gaithersburg, Hayward and Mountain View, USA and Cambridge, UK	
	<b>Merck Serono</b> Feni-sur-Corsier, Switzerland and Ivrea, Italy	
	<b>Novartis Vaccines</b> Siena, Italy	
	<b>NovImmune</b> Geneva, Switzerland	
	<b>NovoNordisk</b> Målöv, Denmark	
	<b>Pfizer</b> Sandwich, UK and Groton, USA	
	<b>Predictive Physiology &amp; Medicine Inc</b> Bloomington, USA	
	<b>ProBioGen</b> Berlin, Germany	

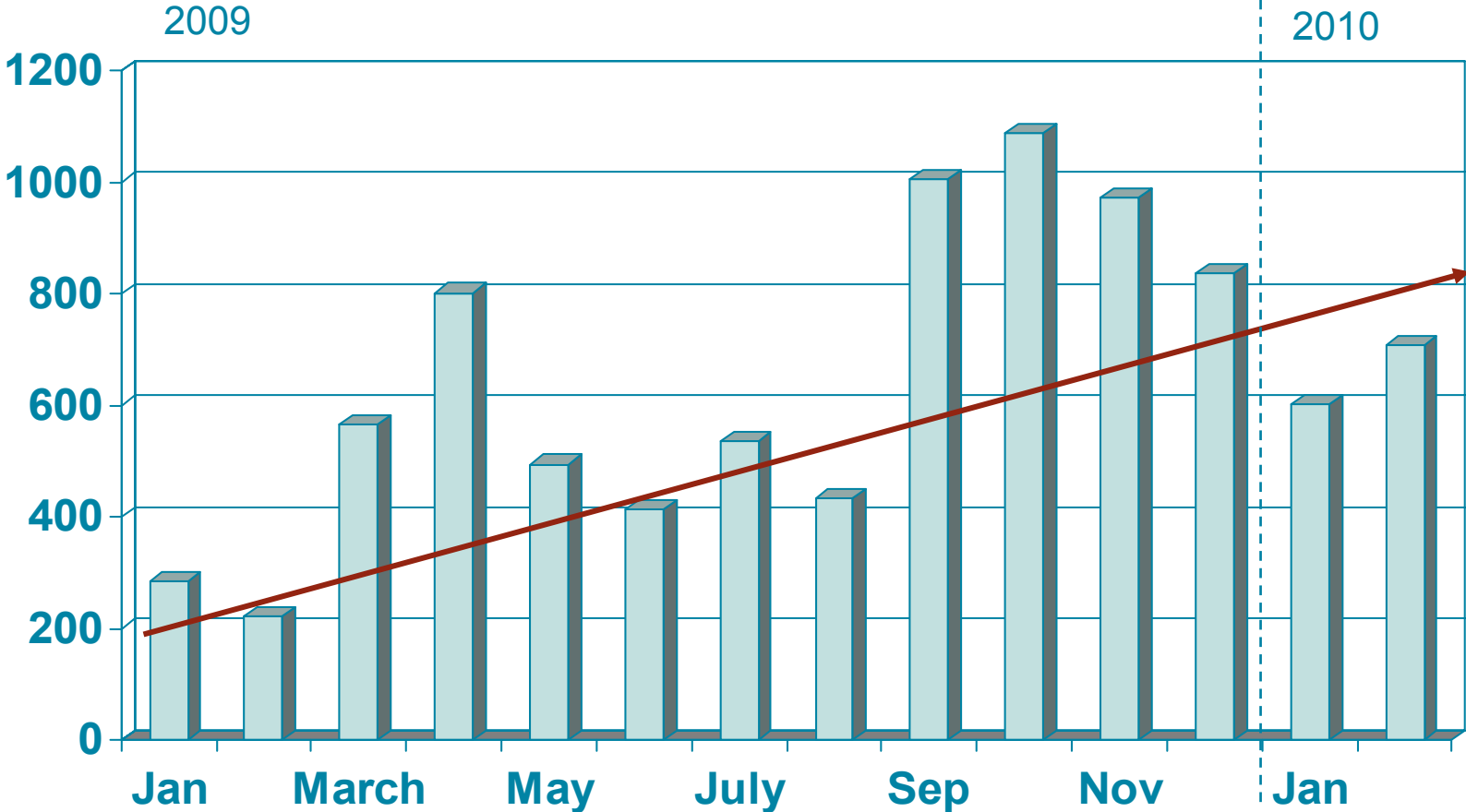
	<b>Recipharm</b> Södertälje, Sweden	
	<b>Quotient</b> (formerly HFL), Fordham, UK	
	<b>Roche</b> Penzberg, Germany	
	<b>Rentschler Biotechnologie</b> Laupheim, Germany	
	<b>Rudbeck Laboratory</b> Uppsala, Sweden	
	<b>National Veterinary Institute</b> Uppsala, Sweden	
	<b>Thrombogenics</b> Heverlee, Belgium	
	<b>York Bioanalytical Solutions</b> York, UK	
	<b>DI Biotech</b> , Korea	



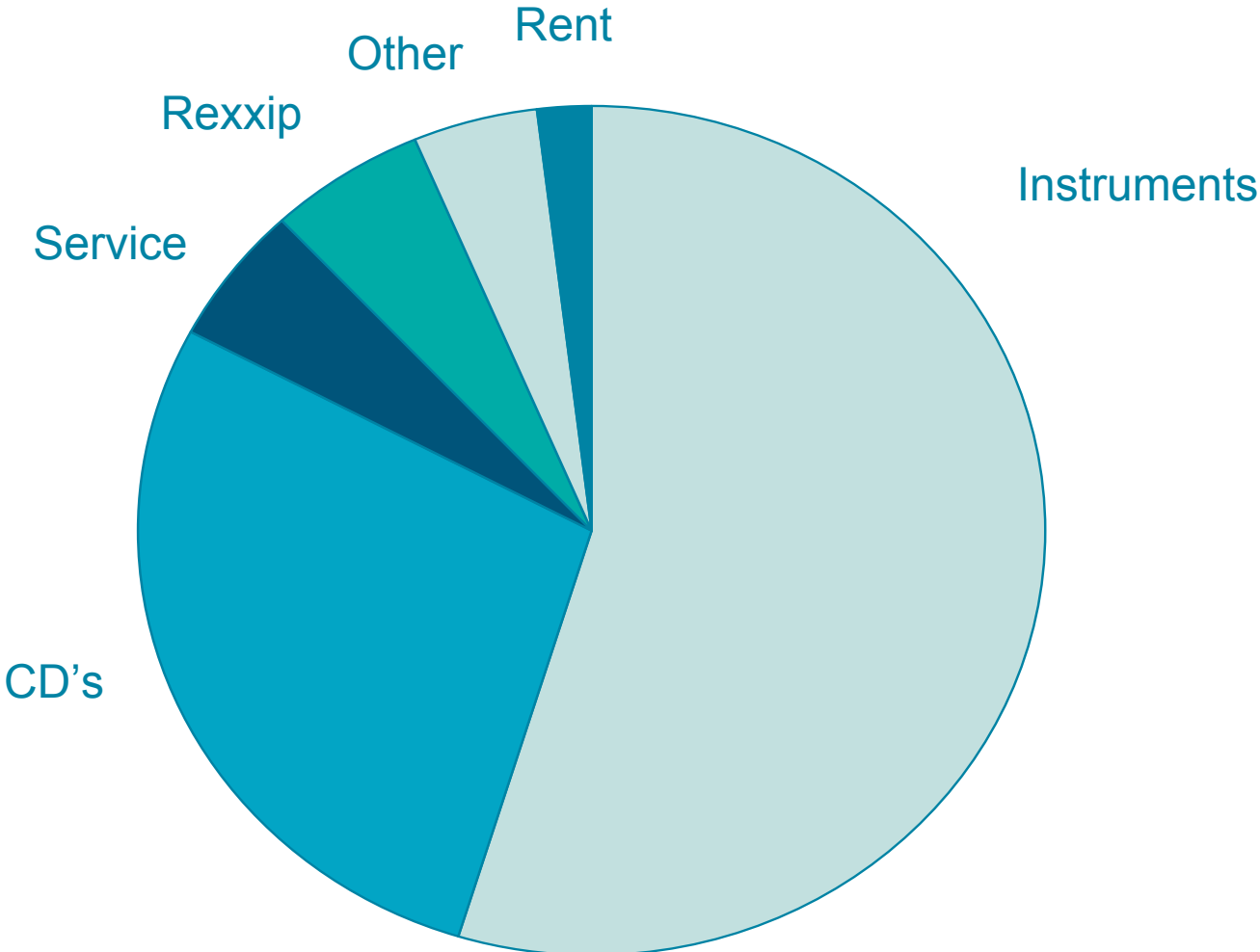
# Strong revenue growth in 2009



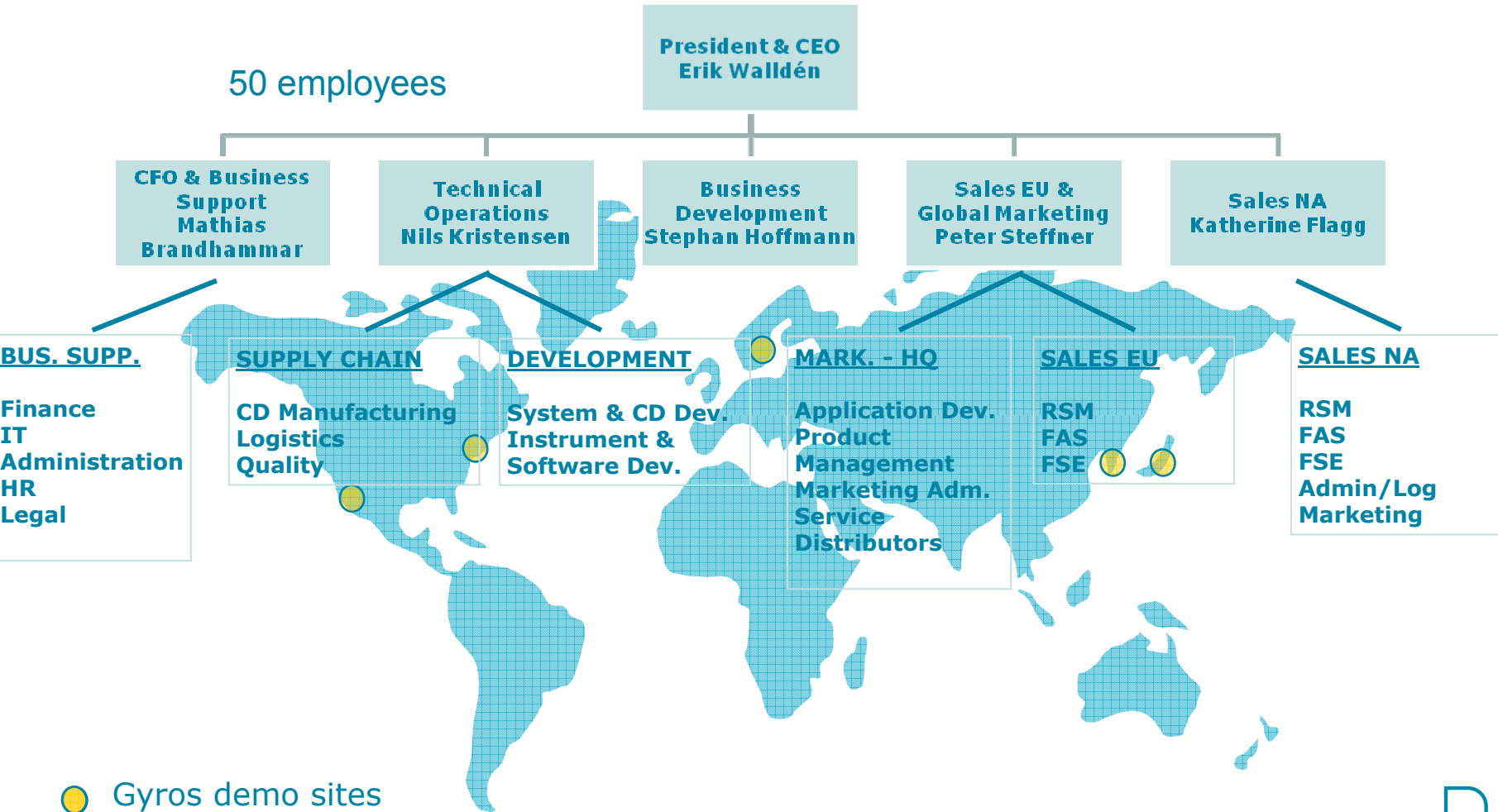
# Monthly trend CD's (units)



# Revenue by category 2009



# A complete organization with global reach



# In Summary

We have:

- A growing base of prestigious customer organizations
- A growing number of multiple Gyrolab™ users
- We have established the value of our technology and products
- First two distributors in Asia up and running
- Additional distributors to be signed up
- Steady consumables sales growth
- A strong pipeline of prospects in Europe and NA with submitted budget for Gyrolab™
- A robust product and satisfied customers
- A motivated and skilled staff
- A stable ownership with long term commitment



# Gyros AB

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*Thank you!*

