

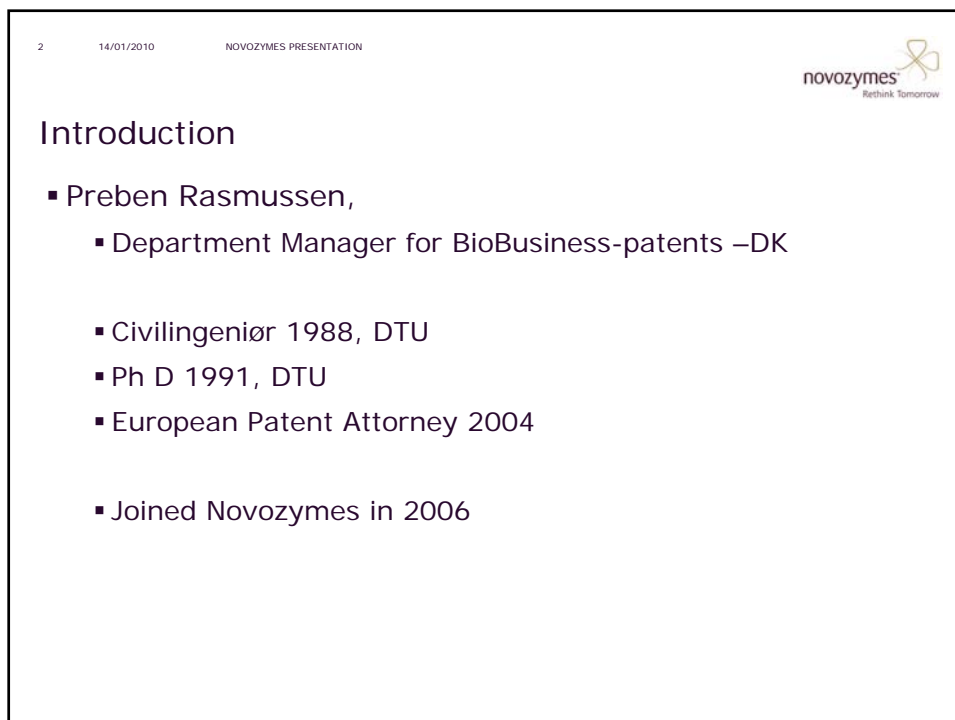
The slide features a white background with a large green trapezoidal shape on the left side. Overlapping the top and right edges of this shape are several thick, brown, curved lines that create a sense of movement and depth. In the top right corner, the Novozymes logo and tagline are present. The main title is centered in the green area, and the speaker's name and title are positioned below it. A dark purple rectangular box with a fine grid pattern is located in the bottom right corner, containing the date.

novozymes  
Rethink Tomorrow

# Novozymes use of patents

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The slide has a clean white background. At the top left, there is a small number '2', followed by the date '14/01/2010' and the text 'NOVOZYMES PRESENTATION'. The Novozymes logo and tagline are in the top right corner. The title 'Introduction' is prominently displayed. Below it, a list of bullet points provides a brief biography of Preben Rasmussen.

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## Introduction

- Preben Rasmussen,
  - Department Manager for BioBusiness-patents –DK
  - Civilingeniør 1988, DTU
  - Ph D 1991, DTU
  - European Patent Attorney 2004
- Joined Novozymes in 2006

## Introduction

- Novozymes is the World leader in Bioinnovation
  - World largest producer of industrial enzymes
  - Provides enzymes, ingredients to biopharmaceutical industry, microorganisms and biosolutions
  - Headquarter in Bagsværd, Denmark
  
- Have more than 1,000 patent families
  - (a patent family is a group of patents and patent applications having same priority application)

## Organisation

- Patent department integrated in R&D
  
- In house Patent functions in different countries
  - Denmark, USA, China, UK and India
  
- We use external patent agents in other countries

## Use of patents

- Patent use:
  - Protects R&D investments
    - Patents are a main way to secure the values generated in R&D
  - Keep competing products away from market
    - Provide a competitive advantage for our own products
  - Grant licenses to selected technologies in selected fields
    - Provides an income for our R&D investment

## Others patent rights

- We respect others valid patent rights
  - We take licenses to third party patents
    - A way to get access to a market covered by third parties technology
    - An option if a third party patent covers our product
  - We try to invalidate patents limiting our activities
    - Mainly using patent invalidation procedures running at the patent offices:
      - Re-examinations in the USA
      - Oppositions in Europe

## Type of protection

- Patents claiming the product (Enzymes)
  - This is our favorite claim type because:
    - It covers any possession, production or use of the products
    - It is easy to enforce because you only have to document the presence of the product to show infringement
- Patents claiming a production method
  - Difficult to enforce because we need to prove that a potentially infringing product is produced using the claimed method to show infringement
  - Some production methods are not patented but kept as know how

## Type of protection

- Claims to the application/use of a product
  - Problematic because these patents covers our costumers activities
  - Customers bying our products gets license to application patents
  - In order to use such a patent against a competitor we must show that the competitor has marketed the product in question together with directions for the particular application/use
  - Each business segment decides on the use of such claims

## Activities in Patent department

- Create new patent rights
  - Draft and prosecute patent applications
  
- Oppose or defend patent rights
  - To invalidate third party patent rights
  - To defend our patents opposed by third parties
  
- Secure freedom to operate for our products
  - Before launch of a new product FTO must be established

## Patent enforcement

- If our patents are infringed we try to enforce our rights
  
- Litigation
  - Performed together with external Lawyers
  - Takes place in court
  - Powerful process to stop infringement
  - Requires a lot of resources
  - Only few cases proceeds to litigation