Ion Beam Applications

Capital Markets Day

Monday 26th September 2016

Olivier Legrain & IBA Management Team

investorrelations@iba-group.com
Disclaimer

This presentation may contain forward-looking statements concerning industry outlook, including growth drivers; the company’s future orders, revenues, backlog, or earnings growth; future financial results; market acceptance of or transition to new products or technology and any statements using the terms “could,” “believe,” “outlook,” or similar statements are forward-looking statements that involve risks and uncertainties that could cause the company’s actual results to differ materially from those anticipated.

The company assumes no obligation to update or revise the forward-looking statements in this release because of new information, future events, or otherwise.
Agenda

- Business and strategy update
- Dosimetry at a glance
- The Future of Proton Beam Radiotherapy
- North America update
- Guidance
Business and Strategy Update

Monday 26th September 2016

Olivier Legrain (CEO)
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IBA today

- IBA is a worldwide technology leader in the field of proton therapy
  - Most advanced form of cancer treatment with radiation therapy today
  - Complete offering (Proteus®PLUS and Proteus®ONE)

- Global leader in dosimetry and particle accelerators

- Three activities with significant market share:
  - Proton therapy: 60%
  - Dosimetry: 20%
  - Other Accelerators: 20%

*Proteus®PLUS and Proteus®PLUS are the brand names of a Proteus®235 configuration*
IBA stakeholders

Patients & Customers

Shareholders

People

Society

Environment
Reshaping IBA Culture

New Culture

- 2-day session where 250 managers learned to concretely change their thinking and behavior
- 14 culture concepts identified as key in shifting our culture discussed each month with the teams
- We are global

250 IBA MANAGERS @ IBA 4.0
Expansion Strategy and CAPEX

- Recruitment – 400 engineers and related staff to increase headcount from 1,200 to 1,600 in the next 12 months – 50% in Belgium, remainder in the USA, Europe and Asia
  - 206 already identified

- CAPEX – scale-up program to increase capacity including investment in production (new Proteus®ONE assembly line) & marketing infrastructure (customer center) of EUR 15 million over 2 years
Leading the install base - Market shares in systems

Total: 93 centers

IBA 47%
Varian 16%
Hitachi 12%
SHI 6%
MELCO 4%
Mevion 10%
ProTom 2%
ProNova 1%
AVO 1%
Leading the install base - Market shares in rooms

Total: 235 rooms

IBA 47%
Varian 21%
Hitachi 15%
SHI 5%
MELCO 5%
Mevion 4%
ProTom 2%
ProNova 1%
AVO 0%
Market shares in rooms by geography

Rooms (YTD)

Number of rooms US

- IBA: 48%
- Hitachi: 18%
- Mevion: 4%
- Protom: 8%
- Varian: 22%

Number of rooms Japan

- IBA: 41%
- Hitachi: 21%
- MELCO: 31%
- SHI: 7%

Number of rooms EMEA + ROW

- IBA: 68%
- Mevion: 4%
- Varian: 38%

Number of rooms - Rest of APAC

- AVO: 2%
- Hitachi: 15%
- IBA: 13%
- Pronova: 9%
- SHI: 6%
- Varian: 55%
DRIVERS FOR GROWTH
Growing recognition of proton therapy clinical advantages

Perspective on radiation therapy patients receiving proton therapy as part of their treatment:

1% Today
20% Following reports & policies
45% Following clients’ experiences

Proton Therapy Typical Cancer Indication Mix (% patients):
- Lung 20%
- Genitourinary 15%
- Gastro-intestinal 20%
- Pediatrics 15%
- Brain 10%
- Head & Neck 10%
- Retreatment 5%
- Sarcoma 5%

Oct. 2015 data from a leading center in the US
Strategy

- Grow market from 1% to 20% or more
- Maintain or improve market share
Strategy

Grow market from 1% to 20% or more

Increase clinical relevance

Reduce cost of modality

Trials/publications
Adaptive
Software
Imaging
Design
Production set up
Building
Maintenance
Energy consumption
Staffing
Hypofractionation

Equipment/set up
Operational costs
Maintain or improve market share

Go to market

Leverage on other IBA expertises

Partnerships

Regionalization

Dosimetry

Other Accelerators
Increasing clinical relevance of proton therapy

- **IBA strategy**
  - **Support Focus groups**
    - Pediatric
    - Lung
    - Head & Neck
    - Radio-biologic effect
  
  - **Publish White Papers**
    - PT in Oncology
    - Treating pediatric tumors with PT
    - + GI, H&N and Hodgkin Lymphoma

Ongoing clinical trial Total 135

Cumulative number of PT publications

- Publications
Product strategy overview

- Integration
- Workflow
- Adaptive
- Imaging
- Cost
Excellence in Proton Therapy: Integration

TPS/OIS: Open Vendor Strategy
(freedom to choose according to your need)

- Xio (Elekta): 12 centers
- Eclipse (Varian): 7 centers
- RayStation (Raysearch): 17 centers
- Pinnacle*(Philips): 4 sites
- Mosaiq (Elekta): 20 centers
- Aria (Varian): 3 centers
- RayCare (Raysearch): In development
- IBA
Patient throughput – integration - efficiency

WIRELESS

SMART
And more… with Philips Ambient experience
Focus on Online Adaptive Workflow

1. In-room on-table imaging (MRI, CT, CBCT tomorrow)
2. Deformable Registration
   Contour propagation
   Contour QA / Auto Corrections
3. Re-Optimization
   Automatic Replanning
4. Plan Evaluation/Review
5. Plan QA

Workflow Integration and Management

In-Room imaging
Strategic partnerships in adaptive therapy

PHILIPS

Step up collaboration in adaptive proton therapy planning to advance personalized cancer care

Joint offering of unique proton therapy solutions

Next generation proton therapy planning to further increased efficiencies in the patient treatment workflow

By combining expertise in image guidance, software planning and therapy

RaySearch Laboratories

New alliance to offer a unique integrated comprehensive solution for adaptative proton therapy

To realize the full potential of proton therapy

NEXT PLATFORM GENERATION

✓ Seamless integration of RayCare and RayStation with IBA delivery solutions
✓ Optimal workflows
✓ Optimized functionalities for proton therapy
✓ Treatment adaptation
✓ Better operationability
✓ Integrated user interface
Adaptive Therapy - Open innovative program

**PATH** → Open innovation program, focused on Proton Adaptive Therapy

*Leading the PATH*
Launch campaign + landing website (.org)

**Open PATH** → Gateway towards open-source software initiatives

**PATH Forum** → Discussion platform for opinion leaders

- RTK → image registration algorithms
- **REGGUI** → Matlab-based prototyping framework

Example application: vCT offline adaptive workflow

*Other initiatives to come…*

*Other open-source modules to come…*

*Other shared examples to come…*
Adaptive therapy: CBCT and In-Room CT

CBCT Penn Medicine, USA

In-Room CT, Trento, Italy
Adaptive therapy – real time monitoring

Two prototypes in clinical use: Europe and USA
Organ motion management

Planning optimization

Plan

4D CBCT

Imaging

Breath-hold (<10s)

Treat
Several centers start to treat moving tumors with PBS.
Reduce cost of the set up

- **Proteus One**
  - FDA cleared
  - CE marked
  - Treating patients in 2 sites
  - Shonin filed in Japan
Turnkey Building Solution

- **RISK FREE**: Proven Method and Verified Design
- **FASTER**: 4 – 6 months gain on construction
- **ENVIRONMENTALLY FRIENDLY**: Low activation
Maximum system availability guaranteed

- Reliability Design
- Certified PT Experts
- Remote Maintenance

- 2015 Availability Uptime above 98%
What’s next
Being ready for a next potential move!
IBA Dosimetry at a Glance

Frédéric Genin (Chief Marketing Officer Proton Therapy) | communication@iba-group.com
Online Treatment Monitoring (Linac)

1. Online Measurement
2. Instant Verification
3. 3D Patient Dose Analysis
From System Installation to Patient QA

Blue Phantom²

Installation

Commissioning

Machine QA

Patient QA

Lynx PT

MatriXX PT

Sphinx PT

Stingray

Zebra

Giraffe

DigiPhant PT
From System Installation to Patient QA

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MatriXX

Stingray

Zebra

Giraffe

DigiPhant

PT

PT

PT
The key to the future of IBA Dosimetry
Cloud

My MQA Cloud Portal

Statistics

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<th>Own Results</th>
<th>Overall Results</th>
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<tbody>
<tr>
<td>Mean</td>
<td>101.18 %</td>
<td>99.98 %</td>
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<tr>
<td>StdDev</td>
<td>1.54 %</td>
<td>1.50 %</td>
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<tr>
<td>Variance</td>
<td>2.38 %</td>
<td>2.25 %</td>
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<tr>
<td>Median</td>
<td>101.29 %</td>
<td>100.00 %</td>
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<td>Skewness</td>
<td>0.00 %</td>
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<td>Range</td>
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<tr>
<td>Min</td>
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Not released yet
IBA North America

Capital Markets Day, ASTRO 2016

Beth Klein (President, North America PT) | beth.klein@iba-group.com
All Proton Therapy Activities co-located in Reston:

- Sales, Marketing, Sales Support, Product Specialists
- Project management, Install Teams
- Service Delivery, Operations
- Installed Base Upgrades
- EHS, Legal, Information Technology
- Finance
- Research and Development

>300 PT Experts focused on serving our customers better and faster!
PT Rooms Sold 1996-2016

How can we accelerate to MAX POTENTIAL?
High Level Market Drivers

ACCELERATORS

- Competition fueling demand (fear of losing share)
  - Turf war is on - defensive & offensive strategies
  - Fear of losing patients/revenue > fear of PT investment
- Prestige driving academic institutions
  - Need PT to attract & maintain top academic staff
  - PT becoming a "Must-Have" for a complete residency program
  - PT Research becoming the “new thing”
- Reduction in barriers to entry
  - Increased indications/throughput due to PBS and CBCT
  - Affordable - compact systems
  - Access to capital easing-up
  - Linac-like workflow

BRAKES

- Reimbursement
  - Election year anxiety
  - Value Paradigm/MACR impact?
  - Private Payers not paying; no prostate
- TCO (Total cost of Ownership) High
  - Price pressure on equip, svc, terms
  - Competing projects
- Clinical demand/Market awareness still low
  - Quantification of PT value needed
# IBA NAM PT Market Share Snapshot 2016

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Market share</th>
<th>Rooms</th>
<th>Market share</th>
<th>Single room facilities</th>
<th>Rooms in multi room facilities</th>
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<tbody>
<tr>
<td>IBA</td>
<td>44%</td>
<td>44</td>
<td>48%</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>Hitachi</td>
<td>16%</td>
<td>20</td>
<td>22%</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Mevion</td>
<td>22%</td>
<td>7</td>
<td>8%</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Protom</td>
<td>6%</td>
<td>4</td>
<td>4%</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Varian</td>
<td>12%</td>
<td>16</td>
<td>18%</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>

**Includes**
- Installed Base
- Under installation
- Firm orders

**Number of rooms US**

- **IBA**: 48%
- **Hitachi**: 22%
- **Mevion**: 4%
- **Protom**: 8%
- **Varian**: 4%

**Number of centers US**

- **IBA**: 44%
- **Hitachi**: 12%
- **Mevion**: 44%
- **Protom**: 6%
- **Varian**: 22%
Proton Therapy Installed Base North America

- IBA (14)
- Mevion (7)
- Varian (4)
- Hitachi (5)
- Protom (2)
IBA NAM PT Top-Down Account Segmentation

~ 2300 Radiotherapy Facilities in the U.S.

~ 1220 Hospital Based RT Centers

~ 850 RT Centers with > 200 Beds

~ 231 RT Centers with 3+ Treatment Units
   (178 have >400 beds)

Excluding Free standing non-hospital based centers

Excluding Sites with <200 beds

Excluding Sites with <3 linacs

Excludes private facilities, buying groups

Cross Functional Ownership secured
Leveraging relationships with:
- Philips
- RaySearch
- Elekta

Sources: IMV Market Data Report 2013

Develop New Player 1 per Quarter
Why is IBA successful in PT in North America?

1. Experience: 30 years dedicated to PT – Success from Start to Finish
2. NO Obsolescence: proven upgradeability path
3. Execution: 12 months installation – guaranteed
4. Training: comprehensive training program
5. Uptime: demonstrated and proven (97%)
6. Stability: profitable and growing (270M Euro, ~11% REBIT*, ~11% R&D)
7. Financing: flexible financial options

*REBIT: recurring earnings before interest and taxes
Proton Beam Therapy codes 77522, 77523 and 77525 are included in APC 5625 Level 5 Radiation Therapy. In 2016, the APC was reimbursed at $1,150. CMS is proposing to reduce reimbursement to $1,116, a 3 percent decrease for 2017.
Shift to Value Based Paradigm also supports PT

What is it?
- Shift in Payment from Fee-for-Service Model to Value Based Payment
- Value is defined by Quality/Cost
- Quality is being defined between providers and CMS
- MACR alignment with CMS is key to Congress vote to go forward

Why is this significant for PT?
- PT has a higher value for a number of patients than RT for many indications based upon quality factors:
  - Less cost of side effects
  - Less cost of radiation induced complications over patient life
  - Longer life

What is IBA doing to impact/influence this?
- Contracted with mega data analytics company (focus on oncology solutions) to extrapolate life cycle cost of PT vs RT patients using CMS SEER and TRUVEN data; >1M patients
- CMS connections to ensure that patient analytics are being
FINANCIALS AND GUIDANCE
Key financials

- 2015 sales: EUR 270 million (+ 22.6%) ; H1 16: +19.9% ;
- REBIT margin 2015 : 10.9% ; H1 16: +20.0%
- Backlog of EUR 349 million end H1 16 (+15% vs H1 15).

Equipment backlog

* Number of Service Contracts
Guidance – top line

- **Based on the following elements at H1 2016:**
  - PT & Other Accelerators equipment backlog of EUR 349 million
  - PT & Other Accelerators service backlog of EUR 567 million, representing 37 signed contracts of 10 years on average
  - Dosimetry backlog of EUR 18.3 million
  - Clear production and installation schedule for 22 PT projects offering high visibility
  - > EUR 1 billion strong & growing PT pipeline of which 70% Proteus®ONE where IBA has a unique competitive position

- **Top line guidance confirmed:**
  - “above 20%” top line growth in 2016 despite slow year for Dosimetry
  - Double-digit revenue growth expected for foreseeable future
Guidance – REBIT margin & dividend

- **REBIT guidance confirmed:**
  - About 11% in 2016
  - 13 to 15% by 2018

- **Guidance supported by the balance between:**
  - Economies of scale/operational leverage
  - Growing importance of Services
  - Price erosion
  - Investment in scaling up company production capacity and marketing infrastructure
  - Investment in R&D to maintain market leadership

- **Dividend: target 30% dividend payout confirmed**
Q&A
"Thank you"