Shaping new healthcare strategies by mapping out the internal innovation ecosystem in a tertiary hospital

Gerard Albreda Gil\textsuperscript{1,2}

\textsuperscript{1}Healthcare Strategy and Innovation Department, Hospital Germans Trias i Pujol, Badalona, Spain
\textsuperscript{2}Research Group on Innovation, Health Economics, and Digital Transformation, Institut de Recerca Germans Trias i Pujol, Spain.

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Introduction
The world is changing, healthcare is changing...

Patient expectations and profiles are evolving...

And so are healthcare professionals’ profiles...

- Information
- Participation
- Tech savvy
- Resignation

- Standardised
- Multidisciplinary
- ICT use
- Single decision-maker
Future challenges

- Chronicity and complexity
- Limited budgets and public debt
- Shortage of healthcare professionals
- Personalised medicine costs
Combining all of this with...

- Rapid technological advancements
- Global health crises
- Need for effective governance and leadership

Developing new innovative strategies for managing healthcare innovations is now mandatory
Main objective of this work:
To create an “innovation map” in order to analyze the internal innovation ecosystem of the hospital in order to inform and enhance governance, leadership, and strategic management practices.

Secondary objectives:
1. To evaluate the existing attitudes, practices, and adoption patterns of innovation among different groups within the hospital, including leadership, medical staff, and support staff.
2. To identify key challenges and barriers to innovation within the hospital, such as resource disparities and varying perceptions of innovation’s relevance across departments and roles.
3. To propose actionable recommendations for tailored innovation strategies that address the specific needs and conditions of various departments and staff levels within the hospital.
Methodology
Our hospital

**Salut/ Germans Trias i Pujol Hospital**

High technology hospital in northern Barcelona, Spain

- +1.2 M population area
- +4,500 employees
- +16 K major surgeries/year
- +130K A & E/year
Methodology

Mixed-methods approach, combining:

**Phase 1**
Survey with leadership and department heads

**Phase 2**
Focus groups with frontline staff

**Phase 3**
Open survey to all hospital staff

<table>
<thead>
<tr>
<th>Nov 23</th>
<th>Dec 23</th>
<th>Jan 24</th>
<th>Feb 24</th>
<th>Mar 24</th>
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</thead>
<tbody>
<tr>
<td>Qualitative interviews and surveys</td>
<td>Quantitative data analysis</td>
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</table>
Methodology

PHASE 1: Survey for Department Heads and Area Managers

- A Microsoft Forms survey was prepared and sent via email to the target population
- Participants were asked to score items from 1 to 7 (being 1 the least and 7 the most)
- Participation of at least 80% of management personnel was required
- Aims:
  - to gather feedback on the perception of the work carried out by the innovation department so far,
  - to gain an understanding of the progress and needs in each area of the hospital,
  - to elucidate their level of involvement in different innovation projects
Methodology

**PHASE 2: Focus Groups with Frontline Staff**

- Survey data collection extended to other professionals at various hospital departments
- 2x focus groups where conducted in order to discuss and share ideas about the innovation department and the projects implemented so far
- Aim:
  - to develop an in-depth analysis of specific use cases, thereby enriching the information about the current situation and opportunities for improvement
PHASE 3: Open Survey to all Hospital Staff

• A Microsoft Forms survey was prepared and circulated throughout internal communication platforms, mainly, the intranet
• Aims:
  o To gather information on the staff's understanding of innovation-related topics,
  o To identify how to enhance the dissemination of information,
  o To raise awareness of the importance of innovation at the hospital
What topics did the innovation map explore?

- Technological preferences
- Active projects
- Understanding about the innovation area and expectations
Results
Results

N=145 responses collected, providing a comprehensive overview of our internal innovation landscape

**ROLE OF THE PARTICIPANTS**
- **Physicians**: 77%
- **Nurses**: 20%
- **Other**: 3%

**PARTICIPANTS BY AREA OF WORK**
- **Medical area**: 36%
- **Surgical area**: 37%
- **Central services**: 16%
- **Other**: 11%
Technological preferences
Technological preferences

Variability between **Nursing*** and Medicine

Variability between **Surgical Area*** and Central Services

Variability between **Nursing*** and Medicine

Variability between **High responsibility*** and Medium

Variability between **Central Services*** and Surgical Area

Variability between **Medicine*** and Nursing

Variability between **Surgical Area*** and Central Services

*In purple the role scoring the technology higher; p<0.001
Healthcare professionals involved in projects

- Digital health
- 3D technology
- Artificial intelligence
- Remote monitoring
- Medical devices
- Other
Knowledge and expectations about the innovation department
HAVE HEARD ABOUT THE INNOVATION DEPARTMENT

- Yes: 91%
- No: 9%

HAVE WORKED WITH THE INNOVATION DEPARTMENT

- Yes: 60%
- No: 34%
- NK/NA: 6%
Expectations about the innovation department

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average (±SD)</th>
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<tbody>
<tr>
<td>What relevance do you believe that the following areas of work of the innovation department have?</td>
<td></td>
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<tr>
<td>• Teaching and learning: development of new skills</td>
<td>5.90 (1.14)</td>
</tr>
<tr>
<td>• Cocreation and development of new technologies with external collaborators</td>
<td>6.10 (0.97)</td>
</tr>
<tr>
<td>• Strategic positioning of the hospital</td>
<td>6.21 (1.00)</td>
</tr>
<tr>
<td>• Intrapreneurship</td>
<td>5.94 (1.19)</td>
</tr>
<tr>
<td>• Project management and competitive funding opportunities</td>
<td>5.97 (1.13)</td>
</tr>
</tbody>
</table>

The survey reveals that the areas of work of the innovation department are relevant enough.
Expectations about the innovation department

Variability between Medicine* and Nursing
Variability between Surgical Area* and Central Services
Variability between Nursing* and Medicine

*In purple the role scoring the technology higher; p<0.001
Barriers and challenges identified

Challenges in **comprehending work processes** and distinguishing between what constitutes innovation and what does not.

Challenges in **accessing information** and effectively communicating projects and opportunities.

Insufficient mechanisms and **designated spaces** for professionals to actively engage in innovation.
Conclusions

1. Seniority influences long-term innovation vision and its perceived relevance.

2. Medical and Surgical Departments have divergent innovation dynamics and visions.

3. It is important not to adopt a “one-size-fits-all” approach when implementing innovation management strategies.

4. Information silos and varied perceptions based on job role highlight the need for nuanced communication strategies.
Recommendations and Future Directions

- Build a tool to receive all the proposals and suggestions for innovation projects from the Hospital
- Develop an innovation ambassadors program in conjunction with establishing an innovation committee
- Establish forums for exchanging experiences and innovation opportunities among professionals, industries, and the general public
Acknowledgements to the team

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Eloi Querol
Innovation and Digital Transformation Project Manager

Dr Oriol Estrada
Director of Healthcare Strategy
Let’s have a chat!

Gerard Albreda Gil

innovacio.germanstrias@gencat.cat
Recommendations and Future Directions

Build a tool to receive all the proposals and suggestions for innovation projects from the Hospital

- Enhance hospital innovation by making the area accessible to all professionals, simplifying idea communication, and standardizing management to ensure model continuity

Develop an innovation ambassadors program in conjunction with establishing an innovation committee

- Recognize innovative hospital professionals, diversify communication flows for better opportunity dissemination, and professionalize decision-making in innovation management

Establish forums for exchanging experiences and innovation opportunities among professionals, industries, and the general public

- Foster cross-departmental synergies, embedding innovative culture institutionally, and identifying new projects in collaboration with external health system actors