Today’s Schedule

8:30-9:00  Welcome/Introductions
9-10:00    The journey to IN2
10-11:00   Tour of IMSA’s innovation spaces
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00  Break/Open Maker Time
1-3:30     Design Challenge
3:30-4:00  Share Back
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:00</td>
<td><strong>Welcome/Introductions</strong></td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>The journey to IN2</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>Tour of IMSA's innovation spaces</td>
</tr>
<tr>
<td>11:15-12:00</td>
<td><strong>Maker Space Panel</strong></td>
</tr>
<tr>
<td>12:00-12:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:30-1:00</td>
<td><strong>Break/Open Maker Time</strong></td>
</tr>
<tr>
<td>1:00-3:30</td>
<td><strong>Design Challenge</strong></td>
</tr>
<tr>
<td>3:30-4:00</td>
<td><strong>Share Back/Next Steps</strong></td>
</tr>
</tbody>
</table>
Today’s Schedule

8:30-9:00 Welcome/Introductions
9-10:00 The journey to IN2
10-11:00 Tour of IMSA’s innovation spaces
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00 Break/Open Maker Time
1-3:30 Design Challenge
3:30-4:00 Share Back/Next Steps
Illinois Legislative Charges

IMSA was established in 1985 by the Illinois General Assembly as part of the State's comprehensive educational reform package to address the critical need for citizens highly skilled in STEM fields. The Academy opened in 1986.

IMSA is governed by an appointed Board of Trustees and is funded by the Illinois legislature under the Illinois Board of Higher Education appropriation.

Legislative Charge #1
To provide an advanced academic and residential program for students of exceptional talent in mathematics and science.

Legislative Charge #2
To serve others as a catalyst to stimulate teaching and learning in mathematics and science throughout Illinois.
“IN2” is a highly conceptual name that plays upon the idea of both innovation and inquiry—bridging businesses and the educational focus at IMSA. It also extends the current name assets at IMSA, metaphorically extending the mission.

It plays on the concept of bringing both innovation & inquiry into practice at IMSA and on the concept of what is put “into” the center to make things happen—ideas, intuition, exploration, knowledge, experimentation, etc.

It is short, memorable and easy to say. It leaves room for curiosity and play without having to explain too much.

The three lines composing the “2” represents the different journeys of students through time and the paths that come together at IMSA through innovative practices, inquisitive learning, and problem-solving processes.
The Illinois Innovation Ecosystem

[Diagram showing various institutions and initiatives related to innovation and entrepreneurship in Illinois, such as the University of Illinois, Argonne, Fermilab, and other organizations like CLEAR, Northwestern University, and the Illinois Science and Technology Coalition.]
In2 timeline

2014

2015

design
naming/branding

fund raising (private)

2016

(public 2016 and beyond)

construction

2017

Open/evolves
Where did we start?

1. 2007 IMSA Strategic Plan
2. CoolHub
3. The Gift
4. PB&J Innovation Brown Bag lunch
5. IN2 Advisory Committee (adults)
6. Select Architects
and then what?

7. Design Charrette
8. Intersessions (3)
9. Design Process
10. Maker Squad
11. IN2 Advisory Committee (Students)
12. Naming/Branding
what came next?

13. Programming
14. Fundraising
15. Job Descriptions, hiring and onboarding
16. Order equipment & prepare to open
17. Develop MVP
18. Open (fall 2016)
1871
Silicon Valley (Facebook, Twitter, Dropbox...)
State Farm Next Door (industry)
Chicago Public Library (Maker Space)
IIT Idea Lab
CIE – Chicago Innovation Exchange
MIT Media Lab (Boston)
Harvard Innovation Lab (Boston)
Northwestern University Garage
Greentown Labs (Boston)
Artists’ Asylum (Boston)
Purdue (Foundry & Anvil)
Chicago - DMDII
University of Illinois Research Park
Rockford & Peoria Innovation spaces
Silicon Valley

Twitter, Dropbox, Google, Avos, Exploratorium, Facebook, WeWork
Twitter

Takeaways: Internal hack days; branding; unique staff benefits;
Exploratorium

Takeaways:
Engaging; fun; applied learning; Manipulatives; peek behind
Silicon Valley

Google

Takeaways: teams; art inspired; edgey
Silicon Valley

Facebook

Takeaways: fun; mentoring; Creativity outlets; benefits
Silicon Valley

Avos

**Takeaways:** flexible open space; inexpensive options; toys & games; design and play with brand (colors)
Silicon Valley

Co-working Spaces (WeWork)

Takeaways: comfort; collaborative; amenity laden; membership; phone booths; café; office station
Boston

Harvard Innovation Lab

Oblong Technology

MIT Media Lab

Greentown Labs

Artists’ Asylum
Boston

Artists’ Asylum

Takeaways: whimsy; chaotic comfort; community; tool organization
Takeaways: Art integration, functionality zones, social media, programming
Takeaways: Mobility, technology, experiential, community around food
Boston

Greentown Labs

**Takeaways:** focused vertical; sponsored community
Boston

MIT Media Lab

Takeaways: Teams; IP; hands-on; ingenuity
Regional

Thermo Fisher Scientific

Blue Waters Petascale Computing

Jump Simulation
"I want to teach older adults how to use technology"

Local Business Incubator
Barrington High School

Aurora Public Library
Maker Space
Pillars & Programs

Teaching & Learning
- Development of credit bearing opportunities
- Energy Center - Power Up!
- Green Apple DOS
- Seed Fund
- Summer Camps
- Global Social Initiative (GSI)
- TALENT junior high external curriculum/PD
- Swanson Fund
- Social Entrepreneurship Initiative
- eleMENT

Entrepreneurship Education
- TALENT programs - MNL
- Internships
- Power Pitch
- Online

Maker Education
- Student Maker Squad
- 3D Printing Workshops & Demos
- Drop-in Maker Hours
- Maker Faire 2017
- Hackathon
- Coding classes
- Teen STEM Café (NIU)
- IN2 STEM Café (NIU)
- MNL
- Internships
- Power Pitch
- Online

STEM Talent Pipeline
- Try-it-Tuesdays
- Hackathon
- Coding classes
- Teen STEM Café (NIU)
- IN2 STEM Café (NIU)
- MNL
- Internships
- Power Pitch
- Online
Funding

Revenue Streams

• Donations
• Memberships
• Sponsorships
• Program fees

Expenses

• Salaries
• Equipment
• Program supplies
Questions
Today’s Schedule

8:30-9:00   Welcome/Introductions
9-10:00     The journey to IN2
10-11:00    **Tour of IMSA’s innovation spaces**
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00  Break/Open Maker Time
1-3:30      Design Challenge
3:30-4:00   Share Back/Next Steps
IMSA Innovation Spaces Tour

Grainger Lab
Grainger Workshop
IN2
Robotics Lab
IN1
Today’s Schedule

8:30-9:00  Welcome/Introductions
9-10:00   The journey to IN2
10-11:00  Tour of IMSA’s innovation spaces
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00  Break/Open Maker Time
1-3:30    Design Challenge
3:30-4:00  Share Back/Next Steps
Maker Space Panel
(next door in IN1)

Lawrence “Bud” Bergie, IMSA COO
Britta McKenna, IMSA CIO
Erik Swanson, IN2 Maker Manager
3D printing online resources

- All Things Tech http://www.engadget.com/
- 3D Printing Industry Resource http://3dprintingindustry.com/
- NASA Summer of Innovation Site http://www.nasa.gov/offices/education/programs/national/summer/education_resources/#.Vqu7GbIrJaQ
- Open Education Consortium http://www.oeeconsortium.org/2015/12/new-oecd-publication-open-educational-resources-a-catalyst-for-innovation/
- Innovation in Community College http://www.league.org/
- National Consortium for Entrepreneurship Education http://www.entre-ed.org/
- Autodesk http://www.autodesk.com/
- Solidworks http://www.solidworks.com/
- Rhino 3D http://www.rhino3d.com/
- Blender http://www.blender.org/
- TinkerCad https://www.tinkercad.com/
- FreeCad http://www.freecadweb.org/
- Sketchup http://www.sketchup.com/
- Slic3r http://slic3r.org/
- 123dDesign http://www.123dapp.com/design

...more presentations and articles at IMSA Digital Commons
Today’s Schedule

8:30-9:00  Welcome/Introductions
9-10:00    The journey to IN2
10-11:00   Tour of IMSA’s innovation spaces
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00 Break/Open Maker Time
1-3:30     Design Challenge
3:30-4:00  Share Back/Next Steps
Today’s Schedule

8:30-9:00   Welcome/Introductions
9-10:00     The journey to IN2
10-11:00    Tour of IMSA’s innovation spaces
11:15-12:00 Maker Space Panel
12:00-12:30 Lunch
12:30-1:00  Break/Open Maker Time
1-3:30      Design Challenge
3:30-4:00   Share Back/Next Steps
Q: Who came today with a specific space or idea to design?
How might we design a new space at our school to invite and enable innovation initiatives?

Key questions...

Who is your target audience and what do they want?
What do they (you) want to make or do?
What are your constraints?
## Today’s Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:00</td>
<td>Welcome/Introductions</td>
</tr>
<tr>
<td>9-10:00</td>
<td>The journey to IN2</td>
</tr>
<tr>
<td>10-11:00</td>
<td>Tour of IMSA’s innovation spaces</td>
</tr>
<tr>
<td>11:15-12:00</td>
<td>Maker Space Panel</td>
</tr>
<tr>
<td>12:00-12:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:30-1:00</td>
<td>Break/Open Maker Time</td>
</tr>
<tr>
<td>1-3:30</td>
<td>Design Challenge</td>
</tr>
<tr>
<td>3:30-4:00</td>
<td>Share Back/Next Steps</td>
</tr>
</tbody>
</table>
Join IN2 on social media...

IN2IMSA

IN2 (Group page)

IN2 (group)

imsa.edu/in2
Lessons from Sylvia…

1. Baby Steps
2. Cheap is Good
3. Failure happens
4. Be the student
5. Don’t sweat the small stuff