Enterprise Ireland

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Helmut Simonis

UCC's Skills Development Program

Tyndall National Institute
Institiúid Náisiúnta

WALTON
Institute for Information and Communication Systems Science

Skillnet IRELAND

MTU
Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

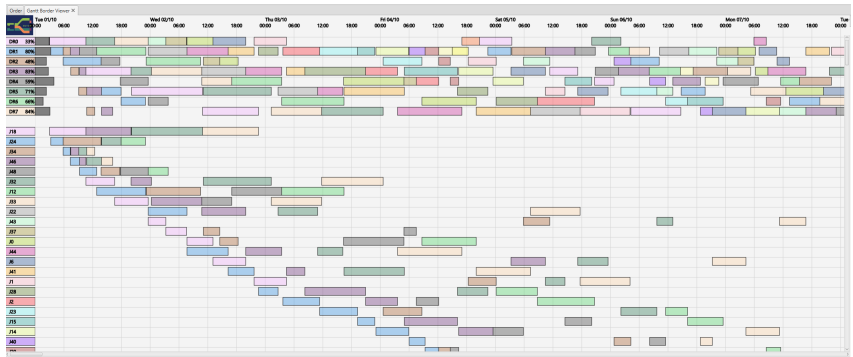
AI Literacy and the AI Act

- From AI, to Ethics, to Regulation
- One day course run by B. O'Sullivan
- First iteration ran in November 24
- Hybrid event format
- Future iterations planned

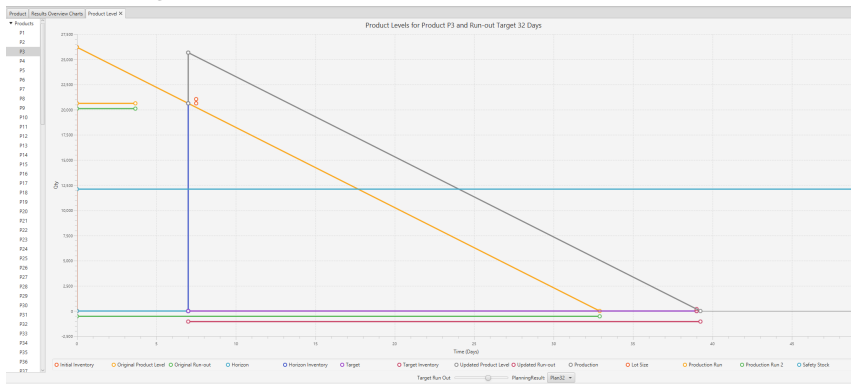
- Evaluation of AI systems
- Ethics for AI
- An overview of the AI Act
- Assessment List for Trustworthy AI

AI Fundamentals: Constraint Based Production Scheduling

- Second iteration runs next week
- In person event
- Presentation of problem constraints
- A generic scheduling tool
- Visualization techniques
- Industrial case studies
- Future iterations on demand



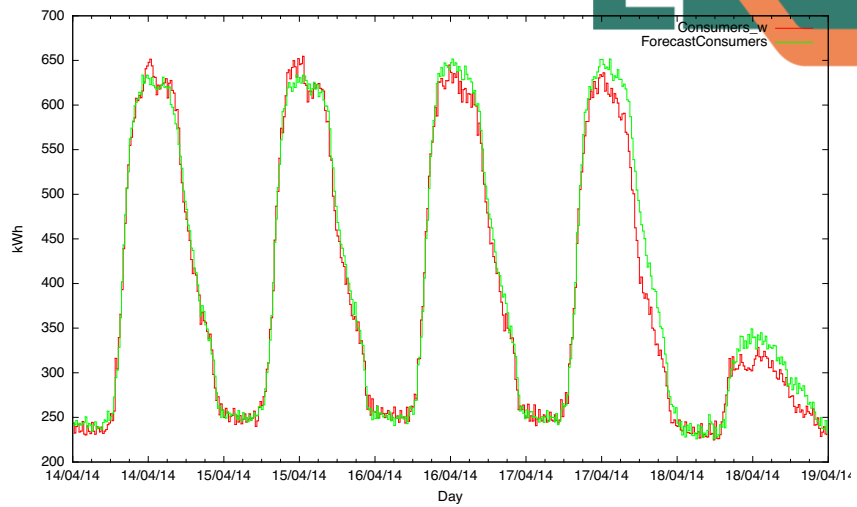
Scheduling Tool: Machine and Job Gantt Chart



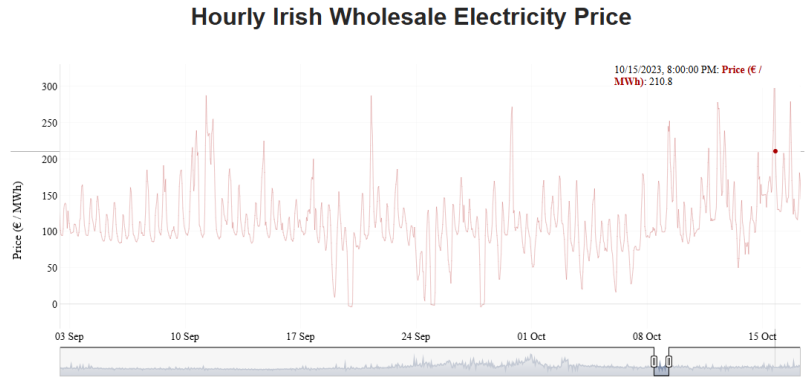
Production Planning Example

Energy Cost Management

- One day event in May
- In person
- How to exploit time variable energy prices
- Using energy storage
- Predicting production, demand and prices
- Case studies



Predicting UCC Campus Electricity Demand



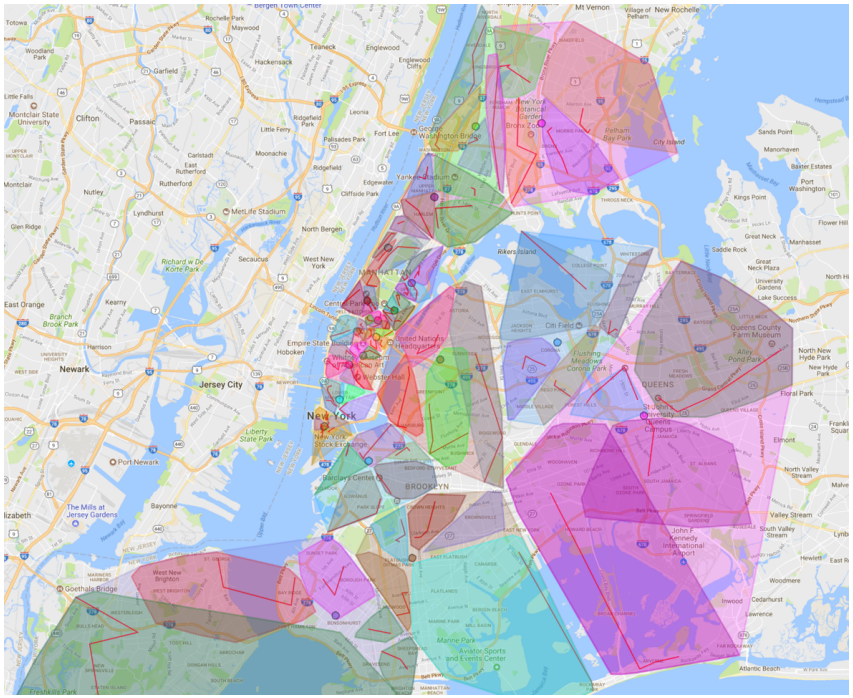
Time Variable Electricity Price

AQuA - All Questions Answered

- One hour sessions on specific topics
- In planning
- One session per month
- In person, online or hybrid
- Reacting to demand of SME/PSO

Transportation and Distribution

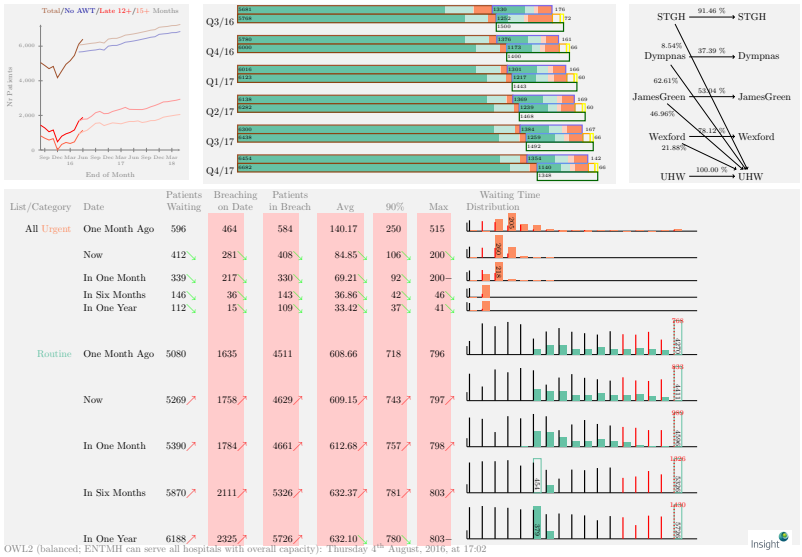
- Problem types
  - Tour limited
  - Capacity limited
  - On-line problems
- Predicting travel times
- Industrial case studies
  - Scheduling maintenance visits
  - Car transport in Ireland
- Planned for Fall 25



Elevator Maintenance Planning in NYC

Rostering and Personnel Assignment

- Problem types
  - Rostering
  - Timetabling
  - Capacity planning
- Solution methods
- Case studies
- Planned for Winter 25/26



Outpatient Capacity Planning Dashboard

Disclaimer

- Subject to change
- Possible additional AI topics to cover
- Lower barrier to entry
- Multi-day courses are heavy investment by SME/PSO
    - Even if they are free!