Net Dev Incubator — why we need it

• Net Dev Incubators are a new initiative in GN5 to improve agility of the GEANT project development process

• Long funding cycles don’t fit well with a rapidly changing technology landscape

• Some of the best innovations come from the clever ideas from network engineers and developers operating networks

• Net Dev Incubators are designed to allow new ideas to be accelerated into development without waiting for the next GEANT workplan.
Net Dev Incubator – part of the development lifecycle

Start Development Gate Checklist

1. Problem statement and objectives
2. Users
3. Benefits
4. Service description
5. Market analysis
6. Costs
7. Funding
8. Roadmap
9. Planning
10. Resources

Enter Production Gate Checklist

1. Service definition
2. Code quality
3. Marketing and visibility
4. Service policy
5. IPR
6. Security inc GDPR
7. Operational support
8. Roadmap
9. Service sustainability
10. KPIs

Sources
- GÉANT Project
- GÉANT Association
- Other projects
Welcome to the GÉANT PLM Portal

Product Lifecycle Management (PLM) actively manages products and services throughout their lifecycle.

The Product Management process ensures that sufficient attention is devoted to all phases of the product lifecycle for each product or service within the portfolio. On this site, you will find:

- Process Guidance
- PLM Resources
- Service Dashboard

https://geantprojects.sharepoint.com/sites/plm
• Good tools will help your team deliver
• Agree which tools you want to use and set these up rapidly

• We chose to use:
  • Wiki.geant.org
  • GEANT sympa mailing list
  • Weekly zoom calls
Problem statement and high-level objectives

• First step in the T/F incubator was to agree the problems statement

• Then we set out the high-level objectives of the incubator

• There is a growing number of optical clocks being built which require fibre networks to enable accurate comparison of time

• Current TF fibre networks are fragmented, without a coordinated plan to integrate them into a unified network after two rounds of H2020 funding (CLONETS / CLONETS-DS)

• Metrology community are planning to redefine the SI second, 2030

• Build a unified network based on existing national infrastructure, joining these islands together (minimum ten countries)

• Invest in coordination between NRENS and NMIs to build a sustainable community

• Identify long-term operational funding beyond 2027
Scope of work

- The scope of work is important
- Clearly identify what is to be done in the incubator
- For example, the incubator is not a place to do development
- It should explain the proposed idea and collect the data needed for the gating phase to go into development

• Build on CLONETS-DS work (do not repeat work already done)
• Provide guidance to GEANT governance on funding objectives
• Work with NMIs to set out ownership, usage, sustainability models
• Define relationships between stakeholders
• Set foundations for procurement process
• Initiate a pathfinder link to prove the technology
PLM development gate checklist

- Use the checklist provide in the PLM website to make sure that your incubator has covered all the required information.
- The check list is useful and the portal explains what information is needed for each item on the list.
- If you have any questions Richard Lui will be able to help. Richard.lui@geant.org
- This process is here to help you get your idea through, not to stop you.

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Problem statement and objectives</td>
<td>Complete</td>
</tr>
<tr>
<td>2</td>
<td>Users</td>
<td>Complete</td>
</tr>
<tr>
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<tr>
<td>4</td>
<td>Service description</td>
<td>WIP</td>
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<tr>
<td>5</td>
<td>Market analysis</td>
<td>Complete</td>
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<tr>
<td>6</td>
<td>Costs</td>
<td>Complete</td>
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<tr>
<td>7</td>
<td>Funding</td>
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<td>8</td>
<td>Roadmap</td>
<td>Complete</td>
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<tr>
<td>10</td>
<td>Resources</td>
<td>Complete</td>
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If possible, set out a desired roadmap for the service you wish to develop.

The incubator phase should be as short as possible to keep the process agile.

Prepare a short report for hand-over. This should include enough information to cover all relevant items in the PLM gate.
Recommendations

- We included a clear set of recommendations
- This was aimed at helping the reviewers in the PLM gate know what we wished to do next
- Make sure you know who the recommendations are for

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>1</td>
<td>In GN5-2 GÉANT should fund the sum of Euro 7.5 million to build the GÉANT C-TFN</td>
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<tr>
<td>2</td>
<td>The Topology of the GÉANT C-TFN should build on options A and B based on community agreement.</td>
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<td>3</td>
<td>The funds provided should be primarily used for purchasing cross-border fibre IRUs and associated amplifier equipment.</td>
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<tr>
<td>4</td>
<td>GÉANT funds should be used to put in place IRUs for fibre links and associated equipment. These fibre links should be owned and operated by GÉANT</td>
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<tr>
<td>5</td>
<td>GÉANT should also use GN5-2 funds to cover the maintenance cost of the fibre and associated equipment.</td>
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<td>6</td>
<td>The fibre IRUs are recommended to be 10 years duration, with a low annual charge to ensure a small ongoing liability in case of funding for maintenance is not available after GN5-2</td>
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<tr>
<td>7</td>
<td>The fibre IRUs should have a clause that allows GÉANT to terminate the fibre contract during the IRU with a well-defined and low liability to GÉANT and its NREN shareholders.</td>
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<td>8</td>
<td>GÉANT should invest in manpower to help the NMIs and NRENs to create a community for agreeing operation and usage of the federated infrastructure.</td>
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<td>9</td>
<td>For sustainability purposes, GÉANT should initiate a process to find funding after GN5-2 ends.</td>
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Conclusions

• Keep the aims limited and concise
• Set tight deadlines
• Use good tools to manage information and your team
• Follow the PLM checklist
• Set clear recommendations
Thank You

Any questions?

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