

Open Source Governance Options for Revs & Bens Alpha

Overview

Teignbridge Council is exploring the feasibility of moving to a more flexible, scalable and adaptable Revenues and Benefits platform, starting with a Business Rates module.

They want to share this with other councils by exploring whether an application such as that developed by Sedgemoor Council can be reused with other council's data and APIs. They are working with a team of Project Partners on this stage.

The Revenue and Benefits System project exists to demonstrate that local councils could be provided with an alternative **open source** Revenue and Benefits module that will continue to be supported and maintained by developers and a team of practitioners.

Objectives

1. The code is open source, meaning it is freely and publicly available
2. Development happens in the open as much as possible
3. Ensure the systems are kept up-to-date and innovating, and remain sustainable
4. Joining the community is not an agreement to funds changing hands - no cost to operate the software, but there may be a cost (or resource) to joining the community

Governance Models

Do-ocracy

Do-ocracy relies on individual stakeholders as this model is based on merit, members who consistently make contributions gain authority. Due to the nature of this model, it is difficult to join as newcomers may not immediately know how to participate or seek approval for their contributions. However, contributors from councils may volunteer for more work & councils may begin to feel as though they are contributing more resources (and the possibility of burnout) than other councils who may be withholding resources.

Single Vendor

This model ensures that the project is open source but it is owned by a single firm (such as a 3rd party software company). The benefit of this is an active and engaged user community that is able to get to the market faster. However, outside contributions to the codebase are not accepted, this means that there is no community involvement and it is one firm maintaining the codebase and providing updates thus going against the objectives initially set.

Founder Leader

This model ensures the group who started the project (Sedgemoor) establishes its vision, controls all permissions to merge code into it and administers the project. There is a clean line of power and authority in founder leader projects. However, other councils do not believe one council has all the resources required to support, this model also leads to bottlenecks for project decision making work. Founder leader models can also create a system in which other councils may feel as though they are unable to affect change that is not in line with Sedgemoor's vision.

Foundation-backed

This model allows for the project to exert greater control over project code and resources. Some projects using this model manage articles such as: trademarks, events, governance structures in the project and code approvals. This model is advantageous for projects seeking to ensure successful leadership transitions as well as helping prevent the commercialization of the project under a single vendor. The contributor time required with this model is substantially higher and is a significant drawback.

Recommendation

Foundation-backed should be the model used, this model will aid in preventing the commercialization of this project under a single vendor as well as building a community. Councils should join in a collaborative effort to set the vision and direction, interpret requirements for the project, rather than a) one council's vision being imposed (as can be

seen with the founder leader model); b) locking off the community by not allowing contributions (as found with the single vendor model) and c) fracturing trust between councils due to burnout and lack of transparency (as found with do-ocracy).

How to Join the Community

As a Council & Vendors

The MoU must be signed, councils can then join the Steering Group to be involved in the important decisions being made about the direction of the product. The new joining councils can also contribute resources such as financial (which will be discussed in a later section) and employees (at least one technical and one non-technical employee) with the latter being a part of the Steering Group as well as Technical Group and Contributors [group].

Product Managers/Non-Technical

A member of the Steering Group guides new joiners through an orientation and socialisation process, as the project grows it will be a member from the Account Cluster) .

The buddy will get them up to speed on the research so far, investigate some of the development processes, and be part of the conversation.

Once the new product manager is comfortable enough and has the necessary time to commit to the project, they can fully participate in the Sprint Planning and Roadmap building sessions led by the Product Group.

Developers/Technical

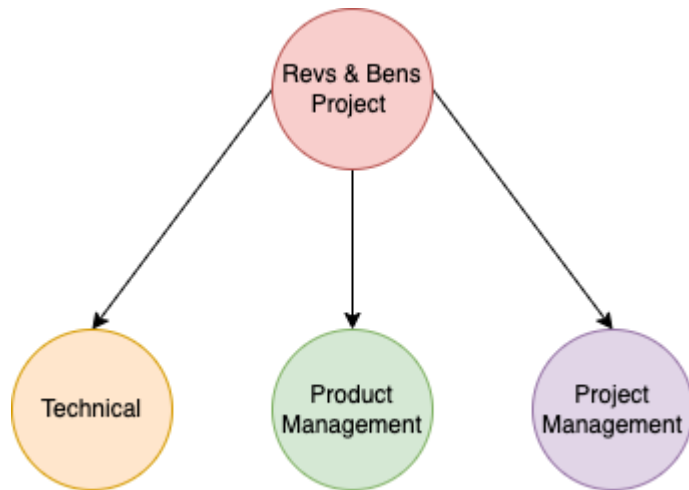
A member of the Technical Group will guide the new joiner by providing the README, documentation regarding the pull requests process. Further technical information to be provided in Technical documentation.

As a Volunteer Contributor

This sub-group is made up of users that want to contribute to the project, this could be via technical development with requests or non-technical like documentation maintenance. This sub-group of contributors do not necessarily need to be part of a council. As a contributor in this sub-group, the project README file should be read as well as documentation on how to pull requests as well as any other governance documentation available to understand how the project is run. These contributors should also examine the project's change history to identify frequent contributors and either contact them or join the communication channel that is publicly available.

Team Structure

Option 1 - Offshoot



Revs & Bens Project

The project in its entirety, each group function in the project shares progress of their contributions in a meeting

Technical Group

This is the group all technical contributors operate in with technical conversations are held here as well as the actual technical work such as the development and implementation of complex features. This group includes developers, solutions architects and quality assurance testers from local councils as well as external technical contributors (volunteers).

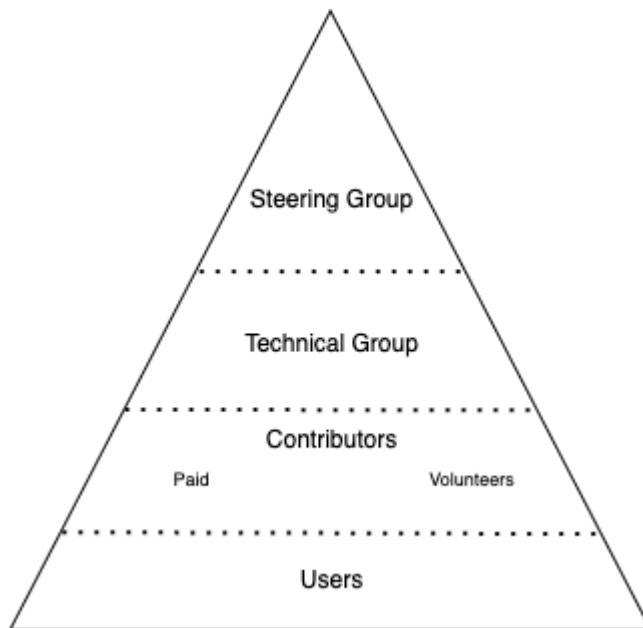
Project Management Group

This is the group that is responsible for promoting the project to other councils to ensure the community continues to grow in a healthy manner, this group is also responsible for the facilitation of councils joining the project.

Product Management Group

This is the group that non-technical contributors operate in, this group works with user researchers, participates in research sessions and plans the general direction of where the product should go. This group of contributors decides the priorities of features in the upcoming sprints (which includes any legislative changes that may be required). This group consists of practitioners from local authorities with an understanding of the revenue and benefits systems and its legislations, the roles include technical business analysts and project managers.

Option 2 - Hierarchy



- The **Steering Group** is a group of practitioners from local councils that guide the general direction of the product, this group will also include technical developers from the **Technical Group**.
- The **Technical Group** is a group of committers representing the required technical expertise to make enhancements. This group consists of developers, quality assurance testers and solution architects.
- **Contributors** are individuals creating and commenting on an issue or pull request
- **Users** are the end users of the product
- **3rd Party Software Vendor** is a software company that works on the support and enhancements of the Revenue & Benefits system through requirements of the **Steering Group**.

Responsibilities

The **Steering Group** is responsible for the following areas:

Governance and process of the Steering Group:

- decision making process
- communications
- onboarding
- setting product roadmap and release dates
- ensuring the product is ready to adjust to new legislations
- leading on the sprint planning meetings
- release quality standards
- technical direction and architecture

The **Technical Group** is responsible for the following areas:

- development processes and coding standards

- git repository hosting
- create guidelines for **Contributors**
- maintaining list of **Contributors**
- resolving issues related to the code
- security review and maintenance

The **Contributors Group** is responsible for the following areas:

- committing code that aligns with the guidelines set up by the **Technical Group**
- maintaining and updating documentation

The **Users Group** is responsible for the following areas:

- using the system
- raising bugs

The **3rd Party Software Vendor** is responsible for the following areas:

- providing support
- creating enhancements
- working with **Steering Group** to understand and deliver requirements

Roles

A few roles that can exist in the Revenue & Benefits project:

- Developers
- Product Manager
- Quality Assurance Tester
- Solutions Architect
- Technical Business Analyst

Open Source roles required in the project:

- Author/Maintainer - Person who created the project, has the power to assign new roles to either members to help with maintenance
- Contributors - People who add to the project in one way or another, following code review process and are subject to the same requirements on code style
- Community Members/Users - Valuable members of the community that provide feedback, bug report and more

Recommendation of Team Structure

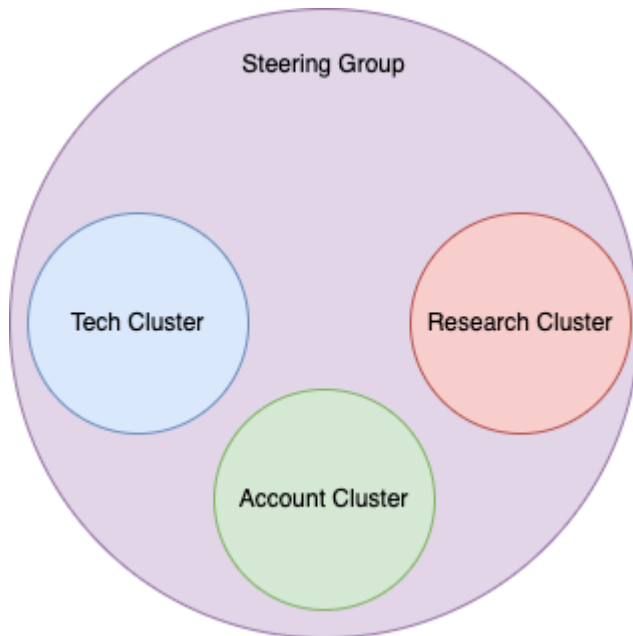
Option 2 is the team structure that should be implemented, the main factor being the Steering group in option 2. The Steering Group includes technical and non-technical members of local councils, this means that decisions about the direction of the product are discussed with contributors that are aware of legislative changes as well as contributors who understand the effort required to make the technical changes. This does not exist in option 1 as the direction of the product is discussed only amongst non-technical contributors.

Governance and Process of the Steering Group

The **Steering Group** is responsible for setting and maintaining guidance on how the Steering Group is governed.

In the early stages meetings can be fairly informal, as the Steering Group grows, this will need to be reviewed and could move to a “cluster” approach.

Cluster Approach



Account Cluster

This cluster takes the lead in managing the joiners and leavers of the community, managing the promotion to ensure the community continues to grow as well as ensuring the community is satisfied. This cluster would be responsible for:

- promoting the project to others (including other councils)
- facilitating joining the community

Research Cluster

This cluster takes the lead in user focused research, they are responsible for:

- working with user researchers
- participating in research sessions and feeding findings back to the Steering Group
- working with user researchers to feedback research into backlog
- informing researchers about priorities to come for future sprints

Tech Cluster

This cluster takes the lead in technical work that is required for the Revenue & Benefits System, they are responsible for:

- handling technical conversations
- provide expertise in revenue and benefits module
- have an understanding of how complex feature requests might be
- able to break down user/business needs into technical implementation plans

Expected meeting schedule:

- **Quarterly**: Steering Group governance review meeting
- **Monthly**: Product roadmap meeting
- **Ad-hoc**: Sprint meetings etc.

The **Steering Group** should preferably spend a day mapping out the outcomes they would like to generate as a result of

The decisions taken at the roadmapping sessions must take place after the Group had a good amount of time to discuss all candidates, and weigh them up against the vision statement. This is the “**decide after discussion**” model, and will require arriving at an informed consensus at the end of the discussion.

Decisions about the overall technical direction and architecture of the product will be taken by the **Steering Group**, which includes technical expertise from members of the **Technical Group**. As the **Steering Group** grows, a Tech Cluster will take oversight of these decisions.

Setting Product Roadmap

The product roadmap is an indication of the work that will be done to the Revenue & Benefits system in order to see the evolution of the product, it will be used to facilitate conversation on:

- prioritisation
- dependencies
- general future direction

The **Steering Group** should:

- regularly review the roadmap
 - making necessary changes to the roadmap
 - communicate the changes made to stakeholders in a transparent manner
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- Spend day mapping outcomes and desires
 - Feature requests logged in a collaboration tool such as Trello

- Monthly review of roadmap, add/remove items based on what information comes from research and re-publish the updated roadmap to the public domain
- With product and technical members, constructive conversations can be held on what can be delivered within a time frame with the team available
- Based on conversations, deciding what work should be done by the **Technical Group** vs what work should be done by the **3rd Party Software Vendors**
- Informing 3rd party software vendor of the work they should do in the sprint

Setting Release Dates

The **Steering Group** plans the big releases, by virtue of having both product and technical members in it.

However, in an agile manner, code should be deployed continuously, and at the very minimum each Sprint should be a release in itself to produce the value it has planned for.

If this is not possible because of the maturity of the development team or any other issues around people's availability or tooling, the **Steering Group** can decide on organising a set of deployments to be released together in a package.

Governance and Process of the Technical Group

The **Technical Group** is responsible for setting and maintaining guidance on how the Steering Group is governed.

Documentation on all technical aspects can be found attached.

Decision Making Process

Decision-making can take a long time in environments where there are multiple stakeholders. If there are decisions that need to be taken quickly and there isn't enough time to bring all practitioners together, then this calls for flexibility too.

In cases where the decision is not a very important one, there is merit in trusting one of the practitioners making that decision, the approach used in these instances is called lazy consensus. This is when objections are not anticipated and the decisions will have low impact or can be revised easily. This approach prevents time being wasted on bringing all parties together for a low risk decision that adds little value.

What Makes a Decision Important?

The criteria for an important decision can be found in answering the following questions:

- Is a huge investment required, time and people?
- If there is a positive outcome, would it benefit a huge number of people?
- If there is a negative outcome, how catastrophic would it be for the project?

If the answers to the questions are “no, no and not bad” respectively, the decision is not very important and the lazy consensus approach should be applied.

Important Decisions

For important decisions, **the Steering Group** follows a “consensus seeking” approach, (utilised by the Node.JS Foundation and local government open source project LocalGov Drupal).

This approach involves the group finding a resolution that has no open objections among members. If a consensus cannot be reached that has no objections then a majority wins vote is called. This majority wins vote is only called as a last-resort, most decisions are expected to be made using the consensus seeking approach.

Any objections raised must include an alternative proposal or a detailed explanation of the reasons for the objection. The group then tries to gather consensus on an alternative proposal that resolves the issue. In the great majority of cases, the concerns leading to the negative vote can be addressed.

Release Quality Standards

Code quality is maintained through policies set by the **Technical Group** which includes coding standards, quality guidelines and automated testing. These should be made public to ensure that contributors are aware of them.

Pull Request Process

Code changes are required to go through a pull request process where a maintainer reviews the code changes prior to merging these with the main branch. Code changes that are not accepted should have feedback applied to them so the developer can make the appropriate changes.

Communication

There are different models that participants in the Steering Group can follow to communicate effectively. The right one depends on the size of the project, as 2-5 stakeholders working together is different from more than 5-15 of them trying to communicate.

Tools like Google Meets and Slack can be used for communication with meetings set up occasionally. For larger projects, a “cluster approach” similar to LocalGov Drupal can be used; when there are more than 5 practitioners.

Communication channels:

- Slack channel
- Video conference for remote meetings (Google Meets)
- Issue tracking on Git repository
- Emails (should be avoided to aid transparency of communication)

Funding

We expect costs of the project to be made up of:

- Core team
- Local Council Team
- Cloud Hosting

Core Team Costs

This is the core team required to maintain the community around the open source project, approve code changes from external contributors, and support local council teams in their development of the system.

This core team could be provided by a 3rd party software vendor, a new venture set up by the steering group, or a council already involved with the project. The estimated cost of this option is dependent on the level of engagement required. Options have been provided for a minimal part time support team and a full-time active development team to show the variance in costs.

Option 1: Part-time support team

Core Team Cost	
Project Manager (1 month per year)	£21,125
Engineer (6 months per year)	£36,833
Annual cost	£57,958

Note: This option allows for organisation and facilitation of Steering Group meetings, review and approval of Pull Requests, and a small amount of time for strategic development.

Option 2: Full time development team

Core Team Cost	
Project Manager	£253,500
Solutions Architect (1 month per year)	£18,400
2 x Engineer	£291,200
1 x Business Analyst	£91,000
Annual cost	£654,100

Note: This option allows for organisation and facilitation of Steering Group meetings, review and approval of Pull Requests, and includes a full-time team for on-going development and maintenance.

Local Council Costs

Local Councils are likely to require a small team to configure the service to their needs, ensure integrations with their services are working and to cover local support issues. Team shape may vary according to council needs, affecting costs. An example team is shown below, with estimated costs for each role.

Local technical support (1 team per council)	
1x Engineer with DevOps skills	£52,610
1x Support Engineer,	£42,140
1x Customer facing Service Owner / Project Manager	£47,430
Annual Cost	£142,180

Note: As an alternative example, Sedgemoor have suggested their team may consist of a Product Manager (0.7 FTE), Solutions Architect (1.2 FTE), Technical Business Analysis (1.0 FTE) and Quality Assurance Tester (0.8 FTE).

Each local council is also responsible for hosting the service for their area. We have provided an example of this cost based on calculations from Sedgemoor, who host their solution on Azure cloud services. Costs for councils may vary depending on hosting method or cloud provider chosen, as well as resources required and usage factors.

Cloud hosting costs per council	
Annual cost	£1,660

Total Costs Per Council

Taking the above costs, the average cost per council, assuming 5 councils are able to split the core costs evenly

Annual running cost per council	
Local Technical Support	£142,180
Cloud Hosting	£1,660
Core Team Cost	£11,592 to £130,820
Annual cost per council per year	£155,432 to £272,660

Assumptions

- At least 5 councils join
- Core team costs can be split between councils therefore councils benefit from economies of scale

Steering Group Membership

This membership will be used to fund the Core Team, there are two methods in which this can be funded:

1. fixed fee
2. using a co-operative council membership calculation

With both options, Councils benefit from economies of scale. If more councils join the steering group, costs are lowered for all councils.

Option 1: Fixed Fee

This method ensures all councils pay the same amount to join the Steering Group, by simply splitting the fee evenly amongst the members.

Assuming 5 members, in order to cover the full-time support team, at an estimated cost of £654,100, the fee would be £130,820.00.

If membership grew to 50 members, the fee would be £13,082 per council.

Option 2: Based on Co-operative Council Membership Model

The calculation below is inspired by the Co-Operative Council model, this calculation is used to ensure that councils pay based on their population and budget fee. Three fees can be taken into account:

1. The base fee
2. The population fee
3. The budget fee

Population fee - This ensures that smaller (typically district) councils are not paying the same population fee as larger unitary or metropolitan councils as our members' population range is from 84,000 to 593,000; ensuring larger authorities are not unduly penalised.

Budget fee - This is based on the controllable (available) revenue and capital budget of each council. This should exclude budget lines that are passported out to schools, and reflects the £609m range of budgets between our largest and smaller members.

An example of this using the Office of National Statistics, assuming an estimated core team cost of £654,100:

	Base fee (£65,000)	Population	Population fee (100%)	Budget (20/21)	Budget fee (0%)	Membership fee
Non-metropolitan district	£65,000	123,446	£24,489	£12,200,000	£0	£89,489
A city	£65,000	798,786	£158,463	£588,000,000	£0	£223,463
A small town	£65,000	135,039	£26,789	£14,500,000	£0	£91,789
A large town	£65,000	277,846	£55,119	£252,600,000	£0	£120,119
Rural district	£65,000	323,820	£64,239	£299,200,000	£0	£129,239
TOTALS	£325,000	1,658,937	£329,100	£1,166,500,000	£0	£654,100

The base fee and percentage of fee based on population or budget can be refined by the Steering Group to ensure all councils consider the fee fair.

We can see from the example above that a city with a high population will pay more than a small town or rural district. The fees for all councils would reduce as more councils joined.

For example, if 5 more rural districts joined, the base fee could be lowered to £50,000. With this new calculation, the city fee could reduce from £223,463 to £87,551, and the rural district's fee would decrease from £129,239 to approximately £65,223.

Further options such as banding of the base fee, or capping the population and budget fees could be explored.